

Quarterly Report 30 June 2014

Advancing the 3.6Moz Banfora Gold Project

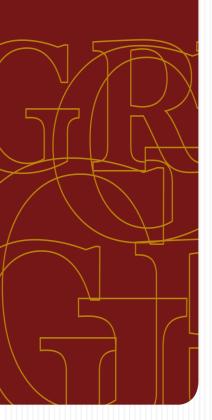
Low cost, high grade heap leach start-up operation

Easily up-sized

Exploration pipeline

Permitted for construction

A\$34m cash + US\$60m mandated project debt13





HIGHLIGHTS

Banfora Gold Project

- Optimisation Studies announced in February 2014 demonstrate potential for low cost, high grade, conventional 2Mtpa heap leach start-up operation providing strong returns^{1,2}. Gryphon Minerals is progressing with a full Feasibility Study on the heap leach option which is expected to be released in August 2014.
- Feasibility Study progressing on a 2Mtpa Heap Leach Operation, the preferred development option for the Banfora Gold Project for the following key reasons:
 - Lower capital and operating costs than Carbon in Leach (CIL) options.
 - Demonstrates a very strong resilience to a lower gold price and demonstrates strong upside potential in a rising gold price environment.
 - At higher gold prices the operation could be easily up-sized with increased heap leach throughput, or via the addition of a CIL plant.
 - Simplified mining operation due to lower cut-off grades and less selective mining requirement.
- Excellent metallurgical extractions¹,8,¹¹: Heap leach test work completed to date and referenced in the optimisation studies indicates gold extractions of: 85% for oxide material; 74% for transitional; and 65% in primary/sulphide. Additional metallurgical test work, using diamond drill core material, continued this quarter to support the Feasibility Study.
- Mining permit awarded Banfora Gold Project fully permitted: Gryphon was granted a Mining Licence (Exploitation Permit) for the Banfora Gold Project in Burkina Faso on 2 June 2014. The Project has all the regulatory approvals necessary to proceed with the proposed 2Mtpa mining operation utilising a heap leach process plant. The Company considers being fully permitted to develop and operate a mine at Banfora a significant milestone and that it confirms the Burkina Faso Government is committed and supportive of the development of a 2Mtpa Heap Leach plant.
- **Environmental & Social:** Corporate social responsibility and maintaining positive relationships with the local stakeholders of the Project remains a priority for Gryphon. Ongoing communication and project development updates are achieved through regular community consultation committee meetings and community focus groups.

Low Cost Exploration

■ Banfora Gold Project^{5,6}

- 2,693m RC drill program completed at newly delineated Kafina West and Ouahiri South Prospects.
- Broad zones of mineralisation intersected at Kafina West Prospect including 12m @ 2.04 g/t Au within a low grade envelope of 36m @ 1.14 g/t Au.
- High grade mineralisation intercepted at Ouahiri South Prospect including 11m @ 3.83 g/t Au and 1m @ 123 g/t Au.
- Both prospects are within trucking distance of the planned plant site and are deeply weathered, suggesting target potential for additional heap leach feed.

Houndé Belt & Regional Burkina Faso – Exploration Pipeline Strategy⁶

- Due diligence and final joint venture (JV) documentation completed (earning up to 80%).
- Initial field work, including soil sampling commenced.
- JV provides exposure to three projects covering 1,750 km² (Golden Hill, Gourma & Tenkodogo).
- Golden Hill Project located on the prolific Houndé belt. Historic drill results include: 2m @ 168.80g/t gold from 22m in hole RC97-075, 2m @ 98.40g/t gold from 4m in hole RC98-148, 2m @ 58.90g/t gold from 2m in hole RC97-82, 2m @ 53.14g/t gold from 24m in hole IRC01-01, and 22m @ 12.35g/t gold from 22m in hole IRC01-19.
- Transaction complements Gryphon's future growth and development pipeline in Burkina Faso and is in line with Gryphon's low cost exploration strategy.

Regional West Africa⁶

- Mauritania Gold & Copper Projects: Rock chips include 20.9% copper, 6.1 g/t gold and 16.2 g/t silver from new target at the Akjout Project, adjacent to First Quantum's Guelb Moghrein copper/gold mine.
- Cote d'Ivoire: Gryphon has undertaken initial low cost geological studies and targeting over prospective ground in Cote d'Ivoire, predominantly in the west and north-west of the country. During the period a new permit under application was granted.

Corporate

Cash and Working Capital

- At the end of the quarter Gryphon held approximately \$34 million in cash, plus approximately \$3 million in listed investments.
- Gryphon continues its commitment to ongoing cost management processes and as a result of these cost reduction programs the Company continues to realise significant savings across the business.
- The Company remains focused on a 'de-risk, get ready & add value' strategy, while maintaining its fundamental principle of preserving its strong cash position in difficult market conditions.

■ Financing – Mandate signed for up to US\$60m Senior Debt to develop Banfora Gold Project¹0

- Following a competitive tender process, the Company signed an exclusive engagement and mandate letter with Macquarie Bank Limited (Macquarie) to act as sole arranger and underwriter for up to US\$60 million in a senior loan facility, associated hedging and a cost overrun facility (Project Loan Facilities) for the development of the Banfora Gold Project in Burkina Faso, West Africa.
- The Project Loan Facilities are subject to certain terms and conditions, including completion of the Feasibility Study, due diligence and final credit approval. Awarding the financing mandate enables the Company to further de-risk the overall development timetable by advancing the financing in parallel with the 2Mtpa heap leach Feasibility Study that is scheduled for completion in August 2014.

Board and Management Appointments – Gryphon Strengthens Development Team

- The Company announced a number of key appointments to the Board and management team to further enhance the Company's development skills as it moves forward with the development of the Banfora Gold Project (Project) in Burkina Faso, West Africa.
 - Bruce McFadzean appointed as Non-Executive Director
 - Michael Naylor appointed as Chief Financial Officer
 - Roux Terblanche appointed as Project Development Manager
- These appointments further enhance Gryphons development and construction experience and support the COO, Steve Zaninovich, on the overall delivery of the 2Mtpa Heap Leach operation at Banfora.

JORC 2012 Compliance Statement

The optimisation studies are at Scoping Study level and therefore based on low-level technical and economic assessments, and are insufficient to support the 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.

Overview of Banfora Gold Project | Burkina Faso

The Banfora Gold Project (Gryphon: 90% Burkina Faso Government: 10%) (Project) is located in South-West Burkina Faso, West Africa in a major gold producing district, host to such world class gold deposits as Tongon (4.2 Million oz Au), Syama (5 Million oz Au mined & 6.5 Million oz Au in resources) and Morila (6.5 Million oz Au). Burkina Faso is a stable and progressive nation with over 25 years of strong democratic government and an advanced mining code - demonstrating the nation's desire for mining development.

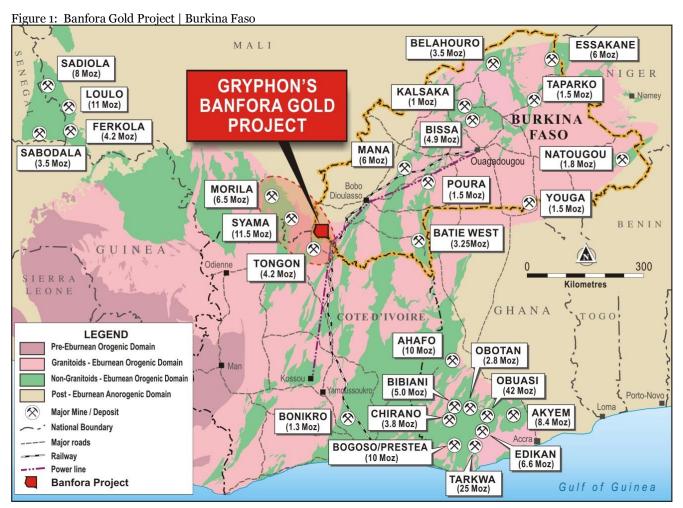
The Project contains contiguous exploration licenses covering approximately 1,100 square kilometres of a major gold district. The project is easily accessible by road and is in close proximity to the town of Banfora and the major city of Bobo-Dioulasso.

The Company completed optimisation studies in February 2014¹, based on a number of alternative development options, appropriate for current gold market conditions. Initiatives for capital cost reduction were the main focus of the studies, in conjunction with examining project economics across a range of gold prices, plant throughputs and optimum process routes.

The results of the studies demonstrated robust economics across a range of conventional heap leach (HL) and Carbon in Leach (CIL) development options, highlighting low capital and operating costs, significant free cash flow and excellent net present value (NPV) and internal rate of return (IRR).

The Company has identified a preferred low cost start up 2Mtpa HL operation¹ that will generate strong returns in a lower gold price environment and is highly leveraged to any gold price increases.

A full Feasibility Study on the preferred HL operation has commenced, with the results expected in August 2014.



Banfora Gold Project | Operational 1,2

Heap Leach (HL) Feasibility Study

The Company expects to conclude its HL Feasibility Study in August 2014. As previously reported, feasibility design support is being provided by Lycopodium Minerals in Perth (Lycopodium) with management of the metallurgical testwork program and heap leach flow sheet definition by Kappes Cassiday & Associates Australia (KCAA).

The Company has benefitted from reduced costs given Lycopodium's involvement in the original CIL Feasibility Study, and have also been able to use their existing knowledge and IP. Furthermore KCAA and Lycopodium have collaborated on numerous HL studies in the past, including: St Ives in Western Australia, Suzdal Heap Leach Project in Kazakhstan and Tasiast in Mauritania.

Optimisation studies - demonstrate robust economics1,2

Gryphon released the results of its optimisation studies on 4 February 2014, which highlighted:

- Robust project economics across a range of conventional HL and CIL development options. Demonstrating low capital and operating costs, significant free cash flow and excellent NPV & IRR's.
- Commencing with a low cost start-up HL operation will generate strong returns. In a lower gold price environment the HL option will generate strong returns and is highly leveraged to any increase in the gold price.
- The 2Mtpa HL operation can be easily up-scaled with either additional HL or CIL capacity for low capital requirements at a later date using cash flow.

Metallurgy - Current Knowledge on Oxide Material and Feasibility Testwork 1,8,11

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 HL testing programs were conducted prior to the current feasibility program. The initial test program was conducted on trench samples of Nogbele oxide material with the second program on drill core composites representing oxide and transition types. The current metallurgical test work program that was commenced in the previous quarter will support the HL Feasibility Study due for completion in mid-2014.

Metallurgy - Fresh/Sulphide Upside^{1,8,11}

As part of the previous 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 BIGS laboratory in Ouagadougou, Burkina Faso, using the intermittent bottle roll technique designed by KCAA to provide indicative results of column leach testing.

Extractions from the intermittent bottle roll test work on the fresh rock (sulphide) samples were very encouraging, with an average extraction of 64.5% and a maximum extraction of 74.5%. The fresh/sulphide resource at the Project is very large of which currently only a small portion is included in the open pit designs, meaning there is potential upside to expanding the pit designs deeper.

Metallurgy - New Test Work Program

The current metallurgical test work program for the HL Feasibility Study is close to finalisation with results expected in July 2014. KCAA was involved in development and monitoring of the previous test work program and have provided this expertise for the current feasibility program. The current test work program has been designed to build on the previous column testwork program conducted on low grade oxide material from Nogbele which indicated gold extractions of up to 85% obtained from a 25 mm crush size (refer to ASX announcement 27 May 2013). The new results will form the basis for advancing the previously released scoping study (refer to ASX announcement 4 February 2014) to Feasibility Study level.

After reviewing the results of the earlier programs, a significantly larger test program was developed to generate a database for the full Feasibility Study to evaluate heap leach processing of all of the Project resources. Samples consisted of 306 metres of diamond drill core, 46 metres of quarter core and 133 metres of core from previous drill programs. The samples represented oxide, primary and some transitional ore from the major deposits. In addition, 95 metres of RC chips of transition ore from the Nogbele area were used for IBRTs (intermittent bottle roll tests).

In all, 653 metres of sample weighing over 1.8 tonnes were provided for testing, representing 62 individual drill holes.

Columns were set at up with a 2 metre cylinder ore height and leaching will continue until gold extractions tail off, allowing extracted gold recoveries to be calculated and confirmed via final residue assays. The residue assay results are expected to be finalised in July, subsequent to which all metallurgical recoveries can be confirmed.

A crush size of 12.5 mm was selected for oxide ore samples in the current test work program, primarily to assist in the recovery of the higher grades expected in the stand alone heap leach option. Modelling of the process design completed under the supervision of Lycopodium has indicated that the reduction in crush size will have minimum impact on the capital cost requirements and operating costs due to the friable nature of the oxide mineralisation. A crush size of 8 mm was recommended by KCAA for primary ore test work based on previous IBRT results and practicality of crushing circuit design.

Agglomeration and percolation tests are being conducted as part of the test work program to establish the cement additions required to generate suitable agglomerates for heap leaching. Results have so far confirmed previous data and indicated low slumping in column scale testwork through moderate cement addition and low cyanide consumption. Final permeability and pad stability tests are due back from the laboratory later in July 2014, after which final cement consumptions can be confirmed. This test work is being overseen by Knight Piésold of Perth, to establish agglomeration and leach pad design requirements.

Progress of the Heap Leach Feasibility Study

The process flowsheet design by KCAA is complete and the plant layout design, being undertaken by Lycopodium, is essentially finalised with detailed costing underway.

The plant design proposes a two stage crushing circuit, which includes a primary jaw crusher and a secondary cone crusher. After crushing, the ore is agglomerated with the addition of cement, then discharged onto the conveying system and stacked onto the heap leach pad. Following stacking, the leach solution is applied to the pad and drains to the pregnant leach solution pond. The pregnant leach solution is then pumped to an adsorption-desorption recovery plant, where the gold is recovered and gold doré is produced.

Plant design will produce a 12.5mm crush on oxide material with an 8mm crush for primary ores at an annualised throughput rate of 2Mtpa for life of mine.

Pit optimisation, mine design and scheduling work for the HL Feasibility Study is progressing and being conducted by Cube Consulting in Perth, who completed a similar scope of work for the original CIL Feasibility Study.

Permitting - Exploitation (Mining) Permit Awarded9

On 2 June 2014, the Company received approval from the Burkina Faso Government for a mining licence for the Banfora Gold Project. The permitting process for the Project is complete and Gryphon has achieved all regulatory approvals necessary to commence development of the proposed 2Mtpa mining operation and heap leach process plant.

The Company considers being fully permitted to develop and operate the Project a significant milestone for Gryphon and confirms the Burkina Faso Government is committed and supportive of the development of a 2Mtpa Heap Leach plant at the Project.

Key aspects of the permit granted by the Burkina Faso Government include:

- encompasses all four deposits making up the Banfora Gold Project Nogbele, Fourkoura, Samavogo and Stinger;
- valid for heap leach processing approach to gold extraction; and
- valid for an initial 20 year period, which can be extended under the Mining Code for successive terms of 5 years each until complete exhaustion of all deposits.

Mr. Lamoussa Salif Kabore, the Minister of Mines, Quarries and Energy (Ministry of Mines), Burkina Faso commented:

"The Ministry is very pleased to have awarded Gryphon Minerals with a mining exploitation permit to extract gold from its 'Banfora Gold Project' in the Leraba Province of Burkina Faso. Gryphon was the first Australian company in recent times to undertake exploration in our country and now the first to be granted a mining permit. The Ministry of Mines and Energy of Burkina Faso looks forward to the commencement of development and successful commissioning of the mine and maintains its strong and ongoing support for Gryphon."

The mining licence was approved following a comprehensive review of Gryphon's application by the Ministry, Ministry of Environment and the National Commission of Mines.

The Burkinabe subsidiary company that will be responsible for the mining activities at the Banfora Gold Project was also successfully incorporated during the quarter and the first AGM and board meeting was held on 5 May 2014.

The State of Burkina Faso has appointed two directors to the Board Mr. Jean Baptiste Kaboré and Madame Hortense Beatrice Georgette Boni.

Mr Kaboré, who represents the Ministry of Mines, Quarries and Energy, trained as a financial analyst and was the CFO of SONABEL the national electricity company from 2000 until 2012. Since 2012, he has been General Manager of a department within the Ministry that is in charge of developing new electricity projects in rural areas in the country.

Madame Hortense Beatrice Georgette Boni, who represents the Ministry of Finance, is a Director of the Agency for Infrastructure, President of the Commission for staff allocation (Directorate-General of Treasury and Public Accounts) and President of the Disciplinary Board of the Ministry of Economy and Finance. She holds a degree of Treasury Inspector (University of Paris), a post graduate degree in Finance and Banking (University of Dakar), a Masters in Audit and Management Control of risks in the public sector (University of Ouagadougou) and a Masters in Economic Sciences (University of Dakar). Mme Boni has an extensive career in external audit and in 2006 and 2010 was honoured with a Chevalier de l'Ordre du Merite (Knight of the Order of Merit) and Chevalier de l'Ordre National (Knight of the National Order) respectively.

Environmental & Social Responsibility (ESR)

Corporate social responsibility and maintaining positive relationships with the local stakeholders of the Project remains a priority for Gryphon. Ongoing communication and project development updates through Community Consultation Committee (CCC) meetings and community focus groups are held on a regular basis.

As previously reported, 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.

During the quarter, CCC representatives and the Company visited Semafo's (TSX, OMF: SMF) Burkina Faso resettlement project to assist committee members in establishing a clearer understanding of the resettlement process and to provide a comparison. Feedback following the visit was very positive.

The CCC meetings during the quarter involved:

- Gryphon presenting the change from a CIL operation to a HL facility and its features; and
- Approval by the committee of the resettlement housing designs.

In addition, a focus group meeting during the quarter was arranged for the women from villages to be resettled, to allow them to better express their views on the issues discussed at the CCC meetings.





Pictures: Women focus group held at Nadjengoala.

Three new community liaison officers (CLOs) were appointed to expand avenues of communication for communities. This communication process has now been expanded to secondarily impacted villages and neighbouring communes mapped out for implementation by the ESR team.

The Project continues to enjoy the support of a specialist resettlement consulting group, InterSocial, with relevant experience in Burkina Faso. This group works closely with project staff and the Company's dedicated ESR Manager.

Banfora Gold Project | Low Cost Exploration⁵

Targeting high grade near-mine mineralisation and generation of new district prospects

- Auger drilling confirmed broad bedrock mineralisation beneath robust soil anomalies at Kafina West, Ouahiri South and Sud Prospects with values to 3.86 g/t gold from saprolite.
- 2,693m RC drill program completed at newly delineated Kafina West and Ouahiri South Prospects.
- Broad zones of mineralisation intersected at Kafina West including **12m** @ **2.04 g/t Au** within a low grade envelope of 36m @ 1.14 g/t Au.
- High grade mineralisation intercepted at Ouahiri South Prospect including 11m @ 3.83 g/t Au and 1m @ 123 g/t Au.
- Both prospects are within trucking distance of the planned plant site and are deeply weathered, suggesting target potential for additional heap leach feed.
- 480m diamond drilling completed at Hillside Prospect where previous rock chips included 154 g/t, 19.1 g/t and 11.9 g/t Au. Core is currently being sampled and results are anticipated in coming weeks.

New Drilling Completed

A 3,651m auger program was completed across the Project to provide the necessary focus and testing beneath numerous broad soil anomalies (refer to ASX Announcement dated 29 January 2014).

The best auger results overall were returned from the Kafina West prospect where peak assays of 3.86 & 1.94 g/t gold were returned from mafic saprolite beneath a broad halo of gold in clay zone/laterite at >200ppb gold levels. This anomaly was detected over 800 metres strike length and widths up to 80 metres. Other encouraging auger saprolite results included 2.47 g/t gold from mafics at Ouahiri South, 1.73 g/t gold from gabbro at Sud, 15.0 g/t gold from mafic saprolite at Bassongoro and at Buzogo a peak of 598 ppb gold from laterite.

Results of the auger program focused an RC drilling program to the Kafina and Ouahiri South prospects leading to a proposed program over both prospects.

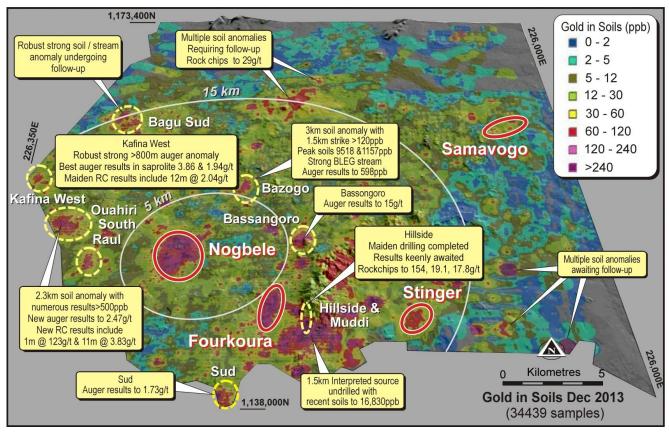
At Kafina multiple broad zones of low grade mineralisation and hematite sericite pyrite alteration were intercepted hosted in an intrusive package. Three lines of fenced drill holes were completed on 500 metre spaced sections targeting the northern portion of the auger anomaly. Weathering at the prospect is greater than 40 metre vertical depth with the most significant drill result of 12m @ 2.04 g/t Au intersected in the southernmost drill line; the reported interval is part of a broader continuously mineralised interval of 36m @ 1.14 g/t Au (0.2 g/t halo). Kafina is located approximately 12 kilometres west of the proposed Nogbele heap leach plant site. Mineralisation remains open to the south.

At Ouahiri, narrow high grade laminated quartz veins were intercepted hosted near the contact of a granitoid intrusive and dolerite/mafic volcanic package. The main orientation of the mineralised vein sets are interpreted to be north-west striking. Significant intersections included 11m @ 3.83 g/t, 6m @ 3.90 g/t and 1m @ 123 g/t. Previously announced drilling to the west of the current intersections have included 3m @ 15.15 g/t in BNRC1242 and 2m @ 15.81 g/t in BNRC1245 (refer to ASX announcement dated 17 July 2014)¹². Weathering depth at Ouahiri is up to 40 metres vertical depth and the prospect is located 7 kilometres west of the planned Nogbele plant site. Further work will focus on delineating structural controls on these high grade veins and establishing continuity.

Both drilled prospects are high priority targets for potential minable oxide material to supplement plant feed for the soon to be completed heap leach Feasibility Study.

An initial 480 metre diamond drill program has been completed at the new Hillside Prospect where high grade rock chips have been returned including 154 g/t, 19.1 g/t and 11.9 g/t gold (refer to ASX announcement dated 5 March 2014). The diamond drilling intercepted significant stylolitic quartz veining in a graphitic shear zone within a chert pyrite alteration zone. Selected core samples have been submitted to the laboratory and results are keenly awaited.

Figure 2: Soil Geochemical Targets at the Banfora Gold Project



Burkina Faso Exploration Pipeline | Houndé Belt & Regional Projects⁶

Golden Hill, Gourma and Tenkodogo Joint Venture (Earning up to 80%) Highlights

- Due diligence and final joint venture (JV) documentation completed.
- Three project areas covering 1,750 km² (Golden Hill, Gourma & Tenkodogo projects).
- Significant exposure to highly prospective ground on the prolific Houndé Belt, Burkina Faso.
- Gryphon has the ability to earn a majority interest in each project area, by meeting two years of minimum expenditure commitments.
- Complements Gryphon's future growth and development pipeline in Burkina Faso.
- In line with Gryphon's low cost exploration strategy.

In March 2014, Gryphon and Boss Resources (ASX: BOE) signed a binding heads of agreement to establish a joint venture over the Golden Hill, Gourma and Tenkodogo gold projects located in Burkina Faso, totalling over 1,750 km². During the period Gryphon undertook due diligence and commenced initial field work, including drainage, soil and laterite sampling on the properties, and on 4 July 2014 Gryphon and Boss signed final documentation.

Gryphon is undertaking proven low cost exploration techniques that have been successful at the Banfora Gold Project and elsewhere in West Africa to build on the previous work undertaken at the Projects, to identify and prioritise targets ready for drill testing.

This strategy is expected to ultimately fast track exploration on the properties as it will direct drilling to those areas most likely to deliver a significant discovery.

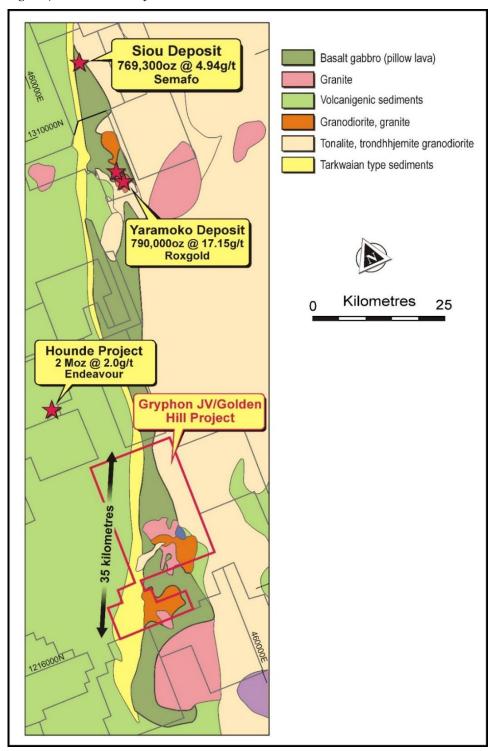
BELAHOURO ESSAKANE MALI (3.5 Moz) SADIOLA **GRYPHON'S TAPARKO** KALSAKA (1 Moz) LOULO (1.5 Moz) **BANFORA GOLD** (11 Moz) BURKINA **PROJECT FERKOLA** Gourma BISSA **FASO** (4.9 Moz) MANA NATOUGOU (1.8 Moz) SABODALA (6 Moz) Ouagadougou POURA Tenkodogo MORILA (1.5 Moz) Dioulass (6.5 Moz) Golden Hill YOUGA SYAMA BENIN (1.5 Moz) (11.5 Moz) BATIE WEST GUINEA (3.25Moz) TONGON 300 (4.2 Moz) SIERRA Kilometres LEONE GHANA COTE D'IVOIRE OGO **LEGEND** Pre-Eburnean Orogenic Domain AHAFO Granitoids - Eburnean Orogenic Domain **OBOTAN** (2.8 Moz) Non-Granitoids - Eburnean Orogenic Domain Man Post - Eburnean Anorogenic Domain OBUASI BIBIANI (5.0 Moz) (42 Moz) Porto-Novo Major Mine / Deposit **National Boundary** CHIRANO AKYEM (8.4 Moz) **BONIKRO** (3.8 Moz) (1.3 Moz) Major roads Railway BOGOSO/PRESTEA EDIKAN (6.6 Moz) Power line **Banfora Project** TARKWA (25 Moz) Gryphon/Boss JV Gulf of Guinea

Figure 3: Gryphon/Boss JV Properties | Burkina Faso

Golden Hill Project

The Golden Hill Project is the most advanced of all the projects in the JV agreement area and is considered particularly prospective as it is located within the highly mineralised Houndé Greenstone Belt. This belt hosts the majority of the high grade discovered gold ounces in Burkina Faso, including Semafo's (TSX, OMF: SMF) recently discovered Siou Deposit (reserves of 769 koz @ 4.94 g/t Au) plus the high grade Yaramoko deposit owned by Roxgold (TSX.V: ROG) (790 koz @ 17.15 g/t Au). The belt also hosts Semafo's Mana Mine (6 Moz) and Endeavour Mining's (TSX: EDV, ASX: EVR) 2Moz 2.0 g/t Hounde deposit (Figures 4 and 5). The Golden Hill Project straddles the same structure and stratigraphy that host these high grade deposits.

Figure 4: Golden Hill Project Location



A number of useful baseline datasets have been collected over the property by Boss Resources and previous explorers, including Orezone Gold Corporation (TSX: ORE), who identified and undertook the initial drill campaigns on some, but not all of the prospects.

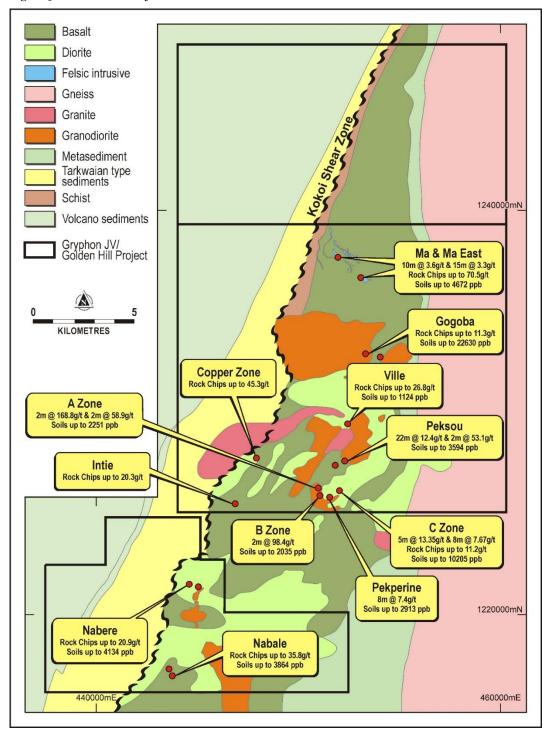
Table 1: Significant historic drill intercepts at the Golden Hill Project

Prospect	Hole	Northing	Easting	From (m)	To (m)	Interval (m)	Au g/t
A Zone	RC97-075	451119	1226464	22	24	2	168.80
	RC97-082	451088	1226415	2	4	2	58.90
	RC97-080	451036	1226441	4	32	28	3.81
	RC98-143	451001	1226290	26	44	18	3.85
B Zone	RC98-148	451156	1226055	4	6	2	98.40
C Zone	CZRC002	451764	1227376	20	25	5	13.35
	CZRC014	451769	1227319	63	71	8	7.67
	RC99-163	451941	1227328	6	20	14	4.09
	CZRC006	451778	1227345	34	47	13	4.11
	CZRC019	452032	1227341	6	28	22	2.36
	CZRC004	451786	1227365	19	30	11	3.77
Pekperine	RC99-157	452114	1226137	18	26	8	7.39
Peksou	IRC01-19	452396	1227600	22	44	22	12.35
	IRC01-01	452362	1227596	28	30	2	53.14
	TKC074	452283	1227629	46	56	10	4.56
	IRC01-03	452275	1227643	35.5	48	12.5	3.16
	TKC077	452417	1227588	28	36	8	4.75
	IRC00-33	452593	1228024	10	12	2	15.20
Ma & Ma East	RCS99-07	452641	1237277	0	24	24	2.12
	GOC023	453453	1236201	4	19	15	3.31
	GOC037	452346	1237423	9	19	10	3.59

Drill results are interpreted to approximate true widths

During the quarter, the company undertook a detailed drainage sediment sampling program completing the field work at a density of approximately 1 sample per 5 km². Seven areas have been prioritised for soil sampling leading to the collection of approximately 2,000 samples, results of which are pending. Geological field mapping has commenced on the initial areas prioritised for work. New high resolution satellite imagery has been acquired and processed in-house to provide a means to identify new artisanal workings and to assist all aspects of the field work.

Figure 5: Golden Hill Project



Gourma Gold Project

The Gourma Project is located within the Fada N'Gourma Greenstone Belt, 250km east of Ouagadougou and only 80 km SSW of Niger's largest gold deposit, the 50,000 ounce per annum Samira Hill gold mine (1.9 million ounce project). The project consists of four contiguous permits (Diabatou, Tyara, Foutouri and Boutouanou) that cover a total area of 850 km² and is easily accessible by existing roads.

The Gourma Project covers a highly under-explored sequence of Birimian greenstones that host abundant artisanal workings within strike of extensive regional shear zones.

The Company undertook a detailed drainage sediment sampling program completing the field work at a density of approximately 1 sample per 6 km2, supplemented, where appropriate, with lateritic lag samples. Results are expected next quarter. High resolution satellite imagery has been acquired and processed in-house to provide a means to identify new artisanal workings and to assist all aspects of the field work.

There are several significant gold targets that will be geologically reviewed by the Company. The Tambiga Hill prospect contains over 1,000 artisanal pits and shafts up to 60m deep that cover an area 500m x 250m. At the Diabatou prospect active hard rock and colluvial workings cover an area of 1,600m x 400m while at the nearby Gariaga Prospect artisanal workings cover an area of 1,300m x 800m.

Tenkodogo Gold Project

The Tenkodogo Project is located on the Gourma Shear Zone, 125km southeast of Ouagadougou within the SW strike extension of the Fada N'Gourma Greenstone Belt of Burkina Faso. The project consists of two contiguous exploration permits (Bassare and Kassougou) that cover a total area of 410km². Access is all year round directly off the Ouagadougou-Tenkodogo highway. The project contains 24 strike kilometres of Birimian Greenstones and is only 30 km east of the 5.9 Moz Kiaka deposit (B2 Gold & Volta Resources). Very little previous exploration work has been conducted on the project.

The Company has completed drainage sampling across the property at a relatively high density of 1 sample per 5 km². High resolution satellite imagery and other remote sensing datasets have been acquired and processed. Results of this first ever project wide geochemical exploration are expected next quarter and these will be used to direct further exploration.

The material terms of the JV are as follows:

- Gryphon to sole manage the JV and fund all exploration on the projects up to the completion of a Definitive Feasibility Study (DFS) and decision to mine.
- Boss Resources to have a free carried interest to completion of a DFS and decision to mine.
- Gryphon shall meet two years minimum expenditure commitments on the permits to earn 51% in the JV.
- On delivery of the DFS Gryphon's interest in the JV will increase to 70%.
- Gryphon has the right to acquire an additional 10% interest in the JV for A\$2.5million.
- Upon completion of the DFS but prior to a decision to mine, Boss Resources may elect to convert the remainder of their interest to a 1.5% NSR otherwise Boss Resources shall be free carried to a decision to mine and will then be required to contribute on a pro rata basis.
- As part of the transaction Gryphon also acquired all the camp property, plant and equipment supporting the projects for a total amount of A\$260,000.

Regional Exploration | Other Projects, West Africa

Mauritania, Tijirit Gold Project (100%)7,11

Prospect mapping and surface sampling activities continue at the Tijirit Gold Project, building the team's geological understanding on the geological and structural controls to mineralisation. This continued work will assist in planning future drilling programs as the Company looks to expand upon the encouraging results to date which include 67m @ 1.16 g/t Au from 66m and rock chip results to 38.9 g/t Au.

Gryphon's exploration work has identified multiple high priority gold targets with similar host lithology, alteration and structural settings to the nearby world class 15 million oz Tasiast Gold Mine operated by Kinross Gold Corporation.

Mauritania is a major province for gold, copper and iron ore and has significant operating mines including the world-class Tasiast gold mine. The Tijirit Gold Project is located in North-west Mauritania and covers approximately 1,400 square kilometres of contiguous exploration licenses.

Mauritania, Akjoujt Copper/Gold Project (Gryphon: 100%)6

Ongoing reconnaissance and prospect scale mapping work continues to follow up on some encouraging rock chip results received last quarter, to a peak of **20.9% copper**, **6.1 g/t gold** and **16.2 g/t silver**. Additional mapping has taken place expanding out from where the mineralised rocks were collected, leading to the identification of several new zones with chloritised schist with iron carbonate alteration within distinct shear zones. During the period systematic surface geochemical sampling was undertaken with the samples awaiting multi-element analysis via portable XRF.

The Akjoujt Copper/Gold Project is located 30 kilometres to the west of the Guelb Moghrein copper/gold mine operated by First Quantum Minerals Ltd. The project area covers approximately 750 square kilometres of contiguous exploration license area.

Mauritania, Saboussiri Copper/Gold Project (Gryphon: 60%)

Results from a detailed BLEG stream survey received during the last quarter identified two new areas of significant interest, both of which had no prior exploration work. A broad zone of copper anomalism has been defined by multiple BLEG stream samples extending over an area of approximately 70 km². The highest gold and silver BLEG stream results came from an area not explored previously. The BLEG survey clearly defined the Toumbou gold prospect and Diaguili copper prospects confirming the robust nature of the technique used. Field work has commenced following up on these results through geological mapping and geochemical prospecting incorporating the portable XRF purchased last quarter.

The Saboussiri Copper/Gold Project is located in Southern Mauritania and covers approximately 1,000 km² of continuous exploration licenses.

Cote d'Ivoire (Gryphon: 100%)

Gryphon has undertaken initial, low cost geological studies and targeting over prospective ground in Cote d'Ivoire, predominantly in the west and north-west of the country. During the period the company received the news that it can expect to be granted a new 400 km² tenement covering prospective terrain in NW Cote d'Ivoire following a meeting of the Council of Ministers on 18 June 2014. The Odienne permit will straddle the Sassandra Fault close to the margin of the Birimian and Man Shields with a mix of granite and greenstone lithologies which continue up into Southern Mali. Once fully granted, which is expected within the next 2 months, reconnaissance exploration can begin. Further updates will be provided as additional applications and field work progresses.

Cote d'Ivoire is a major gold province which hosts over 35% of the Greenstone Belt in West Africa, yet remains massively under explored representing less than 6% of the +1Moz gold discoveries in the region.

Liberia (Tawana Resources NL | Gryphon Minerals owns approximately 9%)

Tawana Resources NL (ASX: TAW) is currently exploring the Mofe Creek Iron Ore Project located 10 kilometres from the historic Bomi Hills Mine (+50Mt high grade DSO magnetite), only 25 kilometres from the coast and adjacent to a heavy haul railway and port in Liberia.

In July, Tawana released the results of a scoping study on the Mofe Creek Iron Ore Project (refer to ASX announcement dated 3 July 2014). The results demonstrated the potential for a low capex, high margin operation with a strong net present value (US\$435M with an 8% discount rate) and internal rate of return of 55.8%.

Corporate

Cash and Working Capital

At the end of the quarter, Gryphon held approximately \$34 million in cash, plus approximately \$3 million in listed investments.

Gryphon continues its commitment to ongoing cost management processes and as a result of these cost reduction programs the Company continues to realise significant savings across the business.

The Company remains focused on a 'de-risk, get ready & add value' strategy, while maintaining its fundamental principle of preserving its strong cash position in difficult market conditions.

Financing - Mandate signed for up to US\$60m Senior Debt to develop Banfora Gold Project¹⁰

- Macquarie Bank Limited (Macquarie) mandated to act as sole arranger and underwriter to provide up to US\$60
 million in a senior loan facility, associated hedging and cost overrun facility, to fund the development of the
 Banfora Gold Project (Project).
- Gryphon is now well positioned to fund development from existing cash and investments and the proposed Macquarie project loan facilities.
- Awarding the mandate further de-risks the development timetable for the Project and underpins Gryphon's future growth.

Following a competitive tender process, the Company announced the signing of an exclusive engagement and mandate letter with Macquarie to act as sole arranger and underwriter for up to US\$60 million in a senior loan facility, associated hedging and cost overrun facility (the Project Loan Facilities) for the development of the Banfora Gold Project in Burkina Faso, West Africa.

The Project Loan Facilities are subject to certain terms and conditions, including completion of the Feasibility Study, due diligence and final credit approval.

Awarding the financing mandate enables the Company to further de-risk the overall development timetable by advancing the financing in parallel with the 2Mtpa heap leach Feasibility Study (scheduled for completion by the end of July-2014).

Gryphon commenced discussions with potential financiers for the Project in March 2014 following the successful completion of optimisation studies¹. In April 2014 a number of international banks submitted indicative term sheets which resulted in the Company shortlisting four potential financiers. Following this, Macquarie was selected as the preferred provider of a debt facility.

Key points of the debt financing mandate:

- Subject to standard terms and conditions including completion of the Feasibility Study, due diligence and final credit approval.
- The hedging facility will further de-risk the operating cash flows of the mine by delivering certainty in the gold price achieved for the amount of gold hedged by the company. The Board believe this is an appropriate risk management strategy for the Company in the current gold environment. The hedged volume is anticipated to be approximately 20-25% of gold production, subject to the achieved forward price.
- The senior debt facility amount may vary depending on the gold price achieved at time of the hedge implementation.
- The term of the senior debt facility is anticipated to be 4.25 years from first gold pour.
- The cost overrun facility will be in addition to the senior loan facility.

Commenting on the financing mandate Steve Parsons, Managing Director of Gryphon Minerals, said:

"The appointment of Macquarie to provide debt financing represents a significant step towards the development of the Banfora Gold Project. Gryphon has undertaken a rigorous and strongly contested tender process for the Project Finance Facilities and has negotiated some very competitive terms which has resulted in the selection of Macquarie".

"Macquarie has an excellent reputation as a leading international investment bank and combined with its financing capabilities and proven depth of experience in financing mining projects in West Africa, we see their involvement as a major endorsement of the Banfora Gold Project."

"With the our existing cash and investments, plus the proposed Macquarie Senior Loan Facility, Gryphon is in a strong position to fund the development of the Banfora Gold Project and starting the significant transition to a gold producer."

Board and Management Appointments -Strengthens Development Team

- Bruce McFadzean appointed as Non-Executive Director
- Michael Naylor appointed as Chief Financial Officer
- Roux Terblanche appointed as Project Development Manager

The Company announced a number of key appointments to the Board and management team to further enhance the Company's development skills as it moves forward with the development of the Banfora Gold Project (Banfora) in Burkina Faso, West Africa.

Non- Executive Director - Mr Bruce McFadzean

Mr Bruce McFadzean joined the Board as a non-executive director, effective 19 June 2014.

Mr McFadzean is a qualified mining engineer, with more than 30 years' of management, mining and processing experience. He is currently CEO and Managing Director of Mawson West (TSX: MWE) and previously served as Managing Director and CEO of Evolution Mining Limited (formerly Catalpa Resources Limited) from 2008 until early 2012. Mr McFadzean's experience includes 15 years with BHP Billiton and Rio Tinto. He has broad technical, operating and corporate experience in commodities including gold, silver, nickel, copper, diamonds and iron ore and he has managed the construction and operation of a number of successful mines in Australia and overseas.

Chief Financial Officer - Mr Michael Naylor

Mr Naylor is an experienced CFO with strong interpersonal, management and leadership credentials gained over 18 years in finance and mining industries. Mike has a strong background in finance, accounting, audit, risk management, capital raisings, treasury management and debt finance. Mike is an experienced professional with international exposure serving on the Board of ASX and TSX listed companies.

Mr Naylor is a Chartered Accountant and member of the Governance Institute of Australia. He commenced his career with Ernst & Young in Australia and Canada for eight years, before joining Resolute Mining Ltd in 2004 as Financial Controller.

Mr Naylor then spent six years in the role of CFO/Finance Director at Dragon Mining Ltd and prior to commencing with Gryphon was Managing Director and CEO of Coventry Resources Inc.

Project Development Manager – Mr Roux Terblanche

Mr Terblanche is a qualified mechanical engineer with a broad range of project and construction management experience spanning over 15 years in mining construction. Roux is a project management professional with sound leadership and proven project planning, worldwide procurement and implementation capability. His site experience in Africa is extensive including assignments in South Africa, Angola, Botswana, Namibia, Zambia, Ghana, Swaziland, Democratic Republic of Congo and Burkina Faso.

Mr Terblanche spent over 12 years at Group Five Projects (South Africa) working his way up to director level, before joining Lycopodium in Australia. He has worked on numerous gold projects, including the Tarkwa Phase IV project, Chirano and most recently as the Manager of Construction at Newmont's \$1bn Akyem Mine in Ghana which was delivered on time, under budget and achieved over 10 million man-hours without a lost time injury. Other commodity experience in Africa includes copper, diamond, platinum, aluminium, heavy minerals, power generation and oil & gas.

Mr Terblanche will lead the project development of Gryphon's 2Mtpa¹ heap leach operation at Banfora Gold Project and has previous exposure to heap leach operations.

For further information in relation to the group's activities please visit our website www.gryphonminerals.com.au.

Notes

Refer to ASX Announcement dated 4 February 2014 (for Exploration Results Gryphon is not aware of any new information or data that materially affects the information included in the said announcement.). The optimisation studies are at Scoping Study level therefore 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.

- ² All material assumptions underpinning the Production Targets detailed in this report (including all financial information derived from those production targets) are detailed in the ASX announcement dated 4 February 2014 and Gryphon confirms those assumptions continue to apply and have not materially changed.
- Refer to how the Mineral Resource estimates were derived in Appendix 3 of the Company's ASX announcement dated 4 February 2014. Gryphon is not aware of any new information or data that materially affects the information included in said announcement. The mineral resources estimates in relation to Stinger and Samavogo deposits have not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported in the ASX announcement dated 31 January 2013.
- 4 All material assumptions and technical parameters underpinning the Mineral Resource estimates in the ASX announcement dated 4 February 2014 continue to apply and have not materially changed since it was last reported.
- ⁵ For full details of these Exploration Results refer to ASX announcement dated 29 January 2014. Gryphon is not aware of any new information or data that materially affects the information included in the said announcement.
- ⁶ For full details of these Exploration Results refer to ASX announcement dated 5 March 2014. Gryphon is not aware of any new information or data that materially affects the information included in the said announcement.
- ⁷ For full details of these Exploration Results refer to ASX announcement dated 5 August 2013. Gryphon is not aware of any new information or data that materially affects the information included in the said announcement.
- For full details of these Exploration Results refer to ASX announcement dated 27 May 2013. Gryphon is not aware of any new information or data that materially affects the information included in the said announcement.
- For full details of these Exploration Results refer to ASX announcement dated 2 June 2014.
- ¹⁰ For full details of these Exploration Results refer to ASX announcement dated 4 June 2014.
- 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.
- 12 Gryphon is not aware of any new information or data that materially affects the information included in the said announcement.
- Availability of the Project Loan Facilities is subject to due diligence, credit approval, entering into documentation and satisfaction of conditions precedent.

Competent Persons Statement

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

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.

Forward-Looking Statements

This announcement may contain "forward-looking statements". Forward-looking statements are based on assumptions regarding Gryphon's expected activities, events and/or strategic plans. Statements which are not based on historic or current facts may be forward-looking

Forward-looking statements are based on current views, expectations and beliefs as at the dates they are expressed and which are subject to various risks and uncertainties. Actual results or performance could be materially different from those expressed in, or implied by, these forwardlooking statements. The forward-looking statements contained in this presentation are not guarantees or assurances of future performance and involve known and unknown risks, uncertainties and other factors, some of which are beyond the control of Gryphon, which may cause the actual future activities, events or strategic plans to deliver results materially different from those expressed or implied by the forward-looking

Gryphon disclaims any responsibility for the accuracy or completeness of any forward-looking statement. Gryphon disclaims any responsibility to update or revise any forward-looking statement to reflect any change in Gryphon's financial condition, status or affairs or any change in the events, conditions or circumstances on which a statement is based, except as required by law. Investors must not place undue reliance on these forward-looking statements.

Appendix 1 | Gryphon Minerals Tenements

Mining Tenements held

Tenement	Location		
Nogbele	Burkina Faso		
Nianka	Burkina Faso		
Dierisso	Burkina Faso		
Nianka Nord	Burkina Faso		
Zeguedougou	Burkina Faso		
Nogbele Sud	Burkina Faso		
Boutouanou	Burkina Faso		
Diabatou	Burkina Faso		
Tyara	Burkina Faso		
Foutouri	Burkina Faso		
Baniri	Burkina Faso		
Intiedougou	Burkina Faso		
Mougue	Burkina Faso		
Bassare	Burkina Faso		
Kassougou	Burkina Faso		
EL236	Mauritania		
EL879	Mauritania		
EL1074	Mauritania		
EL447	Mauritania		
EL1117	Mauritania		
EL448	Mauritania		
	Nogbele Nianka Dierisso Nianka Nord Zeguedougou Nogbele Sud Boutouanou Diabatou Tyara Foutouri Baniri Intiedougou Mougue Bassare Kassougou EL236 EL879 EL1074 EL447 EL1117		

Mining Tenements disposed

Beneficial percentage interests held in farm-in or farm-out agreements

Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed

Nil



Non-Executive Chairman

Managing Director Stephen Parsons

Non-Executive Directors Didier Murcia Bruce McFadzean

Company Secretaries
Candice Donnelly
Carl Travaglini

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Auditors BDO Audit (WA) Pty Ltd 38 Station Street SUBIACO WA 6008

Bankers
National Australia Bank
50 St Georges Terrace
PERTH WA 6000

St George Bank 167 St Georges Terrace PERTH WA 6000

Solicitors
Steinepreis Paganin
16 Milligan Street
PERTH WA 6000

Clayton Utz Level 27 QV1 Building 250 St Georges Terrace Perth WA 6000

Stock Exchange Listing Australian Securities Exchange ("ASX") Home Exchange: Perth, Western Australia

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