



## Quarterly Report

For the period ending  
30 September 2006

### Highlights

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- Banfora Gold Project - Burkina Faso (West Africa):
  - RC drilling intersected significant gold mineralisation including 16 metres @ 8.95g/t gold at the Fourkoura Prospect
  - Diamond & RC drilling intersected significant gold mineralisation including 28 metres @ 2.23g/t gold at the Nogbele Prospect
  - Commencement of 10,000 metre RC drill programme
- Commencement of ground Electro-Magnetic (EM) survey along strike from the BHP Billiton/Nickel West (BHP) and Falcon Minerals Ltd (FCN) Collurabbie Joint Venture Nickel Discovery
- RC drilling along strike of historical Radio Gold Mine, intercepts include 4 metres @ 6.98g/t gold from 43 metres depth
- Acquisition of highly prospective airborne radiometric Uranium anomalies in the Mount Isa District, Queensland
- Appointment of Mr Didier Murcia as Non Executive Director to the Board of Directors



## Introduction

During the September quarter Reverse Circulation (RC) and Diamond Drill results were reported on the Company's highly prospective **Banfora Gold Project**, Burkina Faso - West Africa.

At the Nogbele Prospect a total of three diamond (RC pre-collar) drill holes intersected significant gold mineralisation, including **28m @ 2.23g/t** Au from surface in BNRCD259, **12m @ 3.53g/t** Au from 110m in BNRCD260 and **7.30m @ 9.43g/t** Au from 38.70m in BNRCD261.

At the Fourkoura Prospect, only 7km from the Nogbele Prospect significant drill results from the Company's inaugural RC drill programme included **16m @ 8.95g/t** Au from 32m in BNRC296, **8m @ 3.01g/t** Au from surface in BNRC291 and **8m @ 3.22g/t** Au from 20m in BNRC292.

**The Company has commenced an aggressive exploration programme consisting of approximately 10,000 metres of Reverse Circulation (RC) drilling targeting gold mineralisation at the Nogbele and Fourkoura Prospects and regional soil geochemical sampling at the Banfora Gold Project. Results from the programme will be made available at the earliest opportunity.**

At the **Collurabbie Project** the Company has commenced a first pass Ground Electro-Magnetic survey, approximately 30 kilometres along strike from the BHP Billiton/Nickel West (ex WMC) and Falcon Minerals Ltd Collurabbie Joint Venture Nickel Discovery. The survey is being undertaken over 95 line kilometers and is targeting portions of the highly prospective ultramafic sequence.

During the period an 8 hole Reverse Circulation (RC) drill programme was undertaken at the **Radio Gold Project** north of Southern Cross township. The drilling was undertaken to test for potential shallow strike extensions along the Radio Mine shear zone and the adjacent parallel Radio Deeps shear zone. Significant results included **4 metres @ 6.98g/t** gold from 43 metres in RDRC073 located approximately 250 metres along strike of the historical Radio Mine open pit.

During the period Gryphon successfully completed mineral applications for the **Hamilton River and Cat Creek Uranium Projects** located in the Mount Isa District of Queensland. The Projects secure significant untested radiometric uranium anomalies that are highly prospective for channel and calcrete style uranium mineralization. The Projects cover a combined area of 660 square kilometres. A reconnaissance site visit has been undertaken to determine auger/aircore rig accessibility.

The Company is pleased to have appointed Mr Didier Murcia as Non Executive Director to the Board of Directors. Mr Murcia brings many years of experience to the Board with expertise in law, mineral exploration on the African continent and a sound understanding of African francophone legal systems.



## Banfora Gold Project - Burkina Faso, West Africa

The Banfora Gold Project is located in the south-west of Burkina Faso, West Africa in a major gold producing district, host to such world class gold deposits as Tongon (3.2Moz) Syama (5 Million oz Au mined & 6.5 Million oz Au in resources) and Morila (6.5Moz). The project area contains contiguous exploration licenses covering a total of approximately 1150km<sup>2</sup>.

The Banfora Gold Project Joint Venture (JV) is an “earn-in” JV agreement granting Gryphon the right to acquire 90% (Government 10%) of the highly prospective Banfora Gold Project.

The Project area is easily accessible by road and in close proximity to the town of Banfora. A 100km sealed road connects the project to the major city of Bobo Diolasso and a further 350km to Burkina Faso’s capital city Ouagadougou. Grid power is located approximately 30km from the eastern boundary of the project.

From the Joint Venture database there is a plethora of high magnitude, well defined soil geochemical anomalies that require follow up drill testing. Several of these anomalies are at greater than >250ppb gold and are continuous for over 1000 metres, and have received little or no drilling.

Gryphon Minerals announced results from its inaugural drill programme earlier in 2006 within the large grano-diorite intrusion known as the Nogbele (Nog-be-lee) Prospect. Reverse Circulation and Aircore drilling has targeted areas where broad laterally extensive magnetic zones and high order magnitude soil geochemical anomalies are prevalent. The Company has now drill defined at least seven mineralised gold zones with a combined strike length in excess of five kilometres. Significant gold mineralisation has been intersected on all seven mineralised zones, including the major Nogbele South Zone that extends in excess of 1.2 kilometres strike.

Reconnaissance drilling was also undertaken on the Fourkoura (For-korr-a) Prospect located at the intersection of a major shear corridor and a zoned dolerite intrusive, similar in style to the Golden Mile dolerite in Western Australia. A large historical soil geochemical anomaly extends over 2500 metres in strike length with several peak values over 1000ppb gold that coincides with the dolerite. Gold Mineralization is open in all directions, and the dolerite intrusion continues untested to the north below shallow transported cover.

A selection of Gryphon’s significant drill results to date from the Nogbele and Fourkoura Prospects include:

BNRC296 -	<b>16m @ 8.95g/t</b> Au from 32m
BNRC006 -	<b>16m @ 5.44g/t</b> Au from 0m
	<b>3m @ 6.95g/t</b> Au from 34m
BNAC051 -	<b>41m @ 2.12g/t</b> Au from 0m
BNRCD259 -	<b>28m @ 2.23g/t</b> Au from 0m
BNRC021 -	<b>6m @ 4.41g/t</b> Au from 88m
BNRC030 -	<b>8m @ 3.12g/t</b> Au from 34m
BNRC001 -	<b>15m @ 2.03g/t</b> Au from 36m
BNRC291 -	<b>8m @ 3.01g/t</b> Au from 0m
BNAC063 -	<b>7m @ 3.49g/t</b> Au from 8m

**The joint venture provides Gryphon with an extensive land holding and a cost-effective entry into one of the worlds most prospective known gold provinces.**



For more detail on the Banfora Gold project please refer to the previous Gryphon Minerals Australian Stock Exchange (ASX) Announcements that can be viewed on the Company's website: [www.gryphonminerals.com.au](http://www.gryphonminerals.com.au).

### Activities during the September Quarter

During the September quarter, and as planned by the Company, field work was put on hold for the duration of the seasonal rains as so to review all results and plan the next phases of exploration at the Company's highly prospective Banfora Gold Project, Burkina Faso - West Africa.

During this September period drill results were announced from the Company's first diamond drill programme undertaken at the Nogbele Prospect, and the Company's inaugural RC drilling at the regional Fourkoura and Kassangara Prospects.

At the **Nogbele Prospect** a total of three diamond (RC pre-collar) holes were drilled, each to approximately 130 metres vertical depth to target three separate areas of the "Nogbele South Mineralised Zone". This southern zone extends for in excess of 1200 metres in strike length within the large grano-diorite intrusion known as the Nogbele (Nog-be-lee) Prospect. Within the Nogbele Prospect the Company has now drill defined at least seven mineralised gold zones with a combined strike length in excess of five kilometres. All drill defined mineralised zones, including the southern zone are open in all directions and at depth.

All three holes intersected significant gold mineralisation as seen in the following table:

Table 1 : Nogbele Prospect - Diamond Drilling table

Hole Name	Easting	Northing	From (m)	To (m)	Interval (m)	Gold (g/t)	Gram/Meters g/t
BNRCD259	236710	1146375	0	28	<b>28.00</b>	<b>2.23</b>	<b>62.40</b>
		<i>including</i>	8	12	4.00	7.43	29.70
			103	107	4.00	1.26	5.00
BNRCD260	236740	1146619	20	24	4.00	2.09	8.40
			52.2	55	2.80	2.39	6.70
			110	122	<b>12.00</b>	<b>3.53</b>	<b>42.40</b>
		<i>including</i>	114	116	2.00	6.08	12.20
		<i>including</i>	121	122	1.00	8.91	8.90
BNDD261	237130	1146660	7	13	6.00	1.53	9.20***
			38.7	46	<b>7.30</b>	<b>9.43</b>	<b>103.00**</b>
		<i>including</i>	38.7	40.2	1.50	66.6	99.90
			52	54	2.00	6.34	12.70**
			57	58	1.00	8.05	8.10
			70	76	<b>6.00</b>	<b>3.08</b>	<b>18.50</b>
		<i>including</i>	73	73.9	0.90	16.1	14.50
			118.65	122	<b>3.35</b>	<b>4.14</b>	<b>13.90</b>

\*\* some core loss within interval

\*\*\* interval followed immediately by 3 metres of core loss

Notes for table

- All pre-collar holes drilled by Reverse Circulation.
- All holes diamond tails.
- Assays are for 4m composite samples in pre-collars.
- Assaying conducted by SGS Laboratories, Ouagadougou, Burkina Faso using industry standard 50g lead collection fire assay with AAS finish.
- Reference standards, field duplicates and blank samples are routinely inserted quality control samples are routinely monitored.
- All holes Azimuth direction of 180 degrees and dip direction of -60 degrees.



During the September period the Company announced results from its first drilling targeting gold mineralization outside of the highly prospective Nogbele granodiorite. First pass drilling was completed on two target areas, known as the Fourkoura and Kassangara Prospects, both of which intersected significant gold mineralization.

The **Fourkoura Prospect** is located on the intersection of a major shear corridor and a zoned dolerite intrusive, similar in style to the Golden Mile dolerite in Western Australia. A large historical soil geochemical anomaly extends over 2500 metres in strike length with several peak values over 1000ppb gold that coincides with the dolerite. Historical reconnaissance drilling (average depth 20 metres) had previously intersected significant mineralisation including BFLR205 1m @ 65g/t Au from surface, BFLR201 6m @ 6.16g/t Au from 8 metres, 22m @ 1.70g/t Au from 8 metres, BFLR202 2m @ 8.19g/t Au from 29 metres.

Gryphon Minerals Ltd drilled a total of 13 holes at Fourkoura with a 75% success rate in intersecting significant gold mineralization. Two 100 metre spaced step out lines were drilled at the northern end of the Fourkoura soil geochemical anomaly. All of the holes on these lines intersected significant gold mineralization including 16 metres at 8.95g/t gold on the most northern line, leaving the gold mineralization open to the north.

Gold mineralization appears to be associated with intense silica and pyrite alteration and quartz veining within the more competent zones of the dolerite intrusive. **Mineralization is open in all directions, and the dolerite intrusion continues untested to the north below shallow transported cover.**

Significant selected drill results from the Fourkoura Prospect are included in the table below:

Table 2: Fourkoura Prospect - Gryphon Minerals RC drilling

Hole Name	Easting	Northing	Azi	Dip	From (m)	To (m)	Interval (m)	Gold (g/t)	Gram/Meters g/t
BNRC285	243000	1143930	270	-60	36	40	4	1.18	4.70
					44	56	12	0.51	6.10
BNRC288	243043	1144078	270	-60	8	12	4	0.76	3.00
					64	72	8	0.53	4.20
BNRC289	243073	1144078	270	-60	40	48	8	1.12	9.00
BNRC290	243103	1144078	270	-60	16	20	8	0.63	5.00
BNRC291	243135	1144720	270	-60	0	8	<b>8</b>	<b>3.01</b>	24.10
BNRC292	243165	1144720	270	-60	16	32	<b>16</b>	<b>1.92</b>	30.70
	<i>including</i>				20	28	<b>8</b>	<b>3.22</b>	25.80
BNRC293	243195	1144720	270	-60	40	48	<b>8</b>	<b>2.28</b>	18.20
	<i>including</i>				44	48	<b>4</b>	<b>4.17</b>	16.70
BNRC295	243190	1144826	270	-60	8	16	8	1.28	10.20
	<i>including</i>				8	12	4	1.99	8.00
BNRC296	243220	1144826	270	-60	4	8	4	1.87	7.50
					32	48	<b>16</b>	<b>8.95</b>	143.20
	<i>including</i>				32	40	<b>8</b>	<b>15.05</b>	120.40
BNRC297	243250	1144826	270	-60	32	36	4	1.86	7.40
					60	68	<b>8</b>	<b>2.15</b>	17.20*

\* Indicates drill holes that stopped in gold mineralisation

**Table Notes**

1. All holes drilled by Reverse Circulation.
2. Assays are for 4m composite samples.
3. No 4m composites have been re-assayed as 1m sample splits as of yet.
4. Assaying conducted by SGS Laboratories, Ouagadougou, Burkina Faso using industry standard 50g lead collection fire assay with AAS finish.
5. Reference standards, field duplicates and blank samples are routinely inserted; quality control samples are routinely monitored.



During the period results from the reconnaissance RC drill programme undertaken on the **Kassangara Prospect** were released. Kassangara Prospect is located on the intersection of a major shear zone and high angle, cross cutting structures. Geological mapping and Geophysical interpretations suggest large scale pyrite and magnetite alteration within the Prospect. Drill results were encouraging, and include up to 4 metres at 2.56g/t gold from 12 metres depth. The Kassangara Prospect is a newly identified and previously untested target area. Some one metre intervals are currently being re-analysed for gold, results will be made available at the earliest opportunity.

Table 3: Kassangara Prospect - Gryphon Minerals RC drilling

Hole Name	Easting	Northing	Azi	Dip	From (m)	To (m)	Interval (m)	Gold (g/t)	Gram/Meters g/t
BNRC263	248685	1152480	313	-60	60	64	4	0.75	3.00
BNRC264	248705	1152457	313	-60	0	4	4	0.51	2.04
					12	16	4	<b>2.56</b>	10.24
					24	28	4	<b>1.43</b>	5.72
BNRC265	248733	1152436	313	-60	68	72	4	0.53	2.12
BNRC269	248745	1152560	313	-60	16	20	4	<b>1.51</b>	6.04
BNRC270	248765	1152540	313	-60	16	24	8	0.90	7.20
					32	36	4	<b>1.15</b>	4.60
BNRC271	248794	1152514	313	-60	32	36	4	<b>1.47</b>	5.88
					60	68	8	0.91	7.28
BNRC275	247994	1153115	90	-60	68	72	4	0.51	2.04
					84	88	4	0.76	3.04

**Table Notes**

1. All holes drilled by Reverse Circulation.
2. Assays are for 4m composite samples.
3. No 4m composites have been re-assayed as 1m sample splits as of yet.
4. Assaying conducted by SGS Laboratories, Ouagadougou, Burkina Faso using industry standard 50g lead collection fire assay with AAS finish.
5. Reference standards, field duplicates and blank samples are routinely inserted, quality control samples are routinely monitored.

**Gryphon Minerals views the results from its first regional drill programme at Fourkoura and Kassangara and the diamond drilling at Nogbele as extremely significant, which again reinforces the potential for the Banfora Gold Project to host large scale gold mineralization.**

The Company has **commenced a 10,000 metre RC drill programme**, initially targeting infill and strike extensions of the southern mineralized zone followed by broad step-out drilling on the northern Nogbele zones. Drilling will also target the northern strike extensions of Fourkoura Dolerite Prospect, only 7.5 kilometres to the south east of Nogbele, where previously announced drill intersections included 16 metres @ 9.85g/t Au.

Results from these drilling programmes at the Nogbele and Fourkoura Prospects will be made available at the earliest opportunity.



## Collurabbie Project

Gryphon Minerals' 100% owned Collurabbie project now covers approximately 270km<sup>2</sup> and hosts both the Northern and the Southern extensions of the sequence of ultramafic and mafic rock types that host the mineralisation at the Collurabbie Joint Venture Nickel Discovery. WMC Resources announced in November 2004, that drill results from their Collurabbie JV Project indicated the potential for a new nickel sulphide province.

Gryphon's tenure is located approximately 30km along strike to the North West and 30km along strike to the South of the Collurabbie Joint Venture Nickel Discovery.

Reconnaissance Rotary Air Blast (RAB) drilling by Gryphon Minerals in December 2005 within its southern tenure confirmed the presence of rock types favorable to nickel, copper, gold and PGE mineralization.

### Activities during the September Quarter

During the period Gryphon commenced a first pass ground Electro-Magnetic (EM) programme over an area of the Collurabbie South license. The survey will cover approximately 95 line kilometres across 22 lines using 100 metre stations.

The survey is expected to take four weeks, results will be made available after processing and interpretation of data at the end of the programme.

## Radio Project

The Radio project is an advanced high-grade gold project located in the Bullfinch region of Southern Cross, Western Australia. The project contains 22 semi-contiguous tenements covering an area of approximately 245 square kilometres. Gryphon Minerals owns the majority of the project area 100% including the Radio gold mine.

The project area abuts the +1 million ounce Copperhead gold mine and contains the Radio gold mine, which historically produced over 71,000 ounces of gold at 38.5g/t. The project area is highly prospective for large tonnage multi-million ounce gold deposits as well as smaller high-grade gold deposits.

### Activities for the September Quarter

A short Reverse Circulation drill programme was conducted to test potential shallow strike extensions along the Radio Mine shear zone and the adjacent parallel Radio Deeps shear zone. A total of 8 holes for 557 metres were drilled. Significant drill intersects are tabled below including, **4 metres @ 6.98g/t gold from 43 metres** in RDRC073, located approximately 250 metres along strike to the north-east of the historical Radio Mine open pit.



Table 4: Radio RC Drilling: Table of Significant drill Intersects

Hole Name	Easting	Northing	Dip	From (m)	To (m)	Interval (m)	Gold (g/t)	Gram/Meters g/t
RDRC073	699198	6578291	-60	43	47	<b>4</b>	<b>6.98</b>	27.92
		<i>including</i>		44	45	<b>1</b>	<b>21.00</b>	21.00
				51	52	1	1.60	1.60
RDRC074	699040	6577917	-60	0	1	1	3.79	3.79
				75	76	1	1.05	1.05
RDRC076	699307	6577820	-60	56	57	1	1.30	1.30
RDRC078	699247	6577716	-60	39	40	<b>1</b>	<b>10.30</b>	10.30
				48	49	1	2.65	2.65
RDRC079	699275	6577739	-60	54	56	<b>2</b>	<b>4.32</b>	8.64

Notes

1. All holes drilled by Reverse Circulation.
2. Assays are for 1m splits from previous 4m composite samples.
3. Assaying conducted by Genalysis using industry standard 50g lead collection fire assay with AAS finish.
4. Reference standards, field duplicates and blank samples are routinely inserted quality control samples are routinely monitored finish.
5. All holes Azimuth direction of 330 degrees.

Drill results confirm that gold mineralisation at both the Radio Main and Radio Deeps shear zones is open along strike and at depth.

## Mt Isa, Queensland Uranium Projects

Gryphon Minerals during the September quarter completed two mineral applications (Hamilton River and Cat Creek Uranium projects), prospective for channel and calcrete style uranium mineralization in the Mount Isa District, Queensland.

The projects secure 660 square kilometres of tenure that contains significant untested radiometric uranium anomalies. The Hamilton River project secures in excess of 60km strike length of prospective channels while the Cat Creek project contains a significant 200 square kilometre untested surficial uranium radiometric anomaly.

Any potential uranium enrichment within the project areas are expected in the near surface sediments and as such, exploration for and appraisal of uranium mineralisation is expected to be relatively low cost.

### Activities for the September Quarter

A preliminary site visit was undertaken to determine accessibility for proposed shallow reconnaissance auger/aircore style drilling. Whilst onsite a small geochemical sampling programme of 25 grab soil and vegetation (eucalyptus tree leaf) samples were taken over a portion the 660 square kilometres of tenure for uranium analysis. Results will be made available at the earliest opportunity.

The next, phase of exploration will involve shallow auger / air core drilling to assess the airborne radiometric anomalies potential. Testing and appraisal of the area should be relatively rapid and require minimal expenditure.



## Mount Windarra Project

Gryphon Minerals' Mount Windarra project is located only a few hundred metres from Poseidon NL's, famous Mount Windarra nickel discovery of the late 1960s. The project area contains at least two ultramafic units interpreted to be the basal Mount Windarra ultramafic unit that hosts the Mount Windarra, South Windarra and Woodline Well nickel deposits. These deposits produced in excess of 85,000 Tonnes of nickel.

Initial reconnaissance RAB drilling by Gryphon Minerals intersected anomalous nickel values up to 15 metres @ 0.53% nickel associated with the ultramafic unit. Detailed ground electro-magnetics (EM) identified three high priority targets which drill testing revealed broad zones of disseminated sulphides (though sub economic) in each of the three holes.

Reconnaissance Air-Core drilling to the north of Gryphon's original discovery zone intersected further ultramafic rock types, which now increases the strike length of the prospective basal unit to three kilometres.

With the tripling of the prospective basal ultramafic sequence and the discovery of broad zones of disseminated sulphides in relatively close proximity to the historic Mount Windarra nickel mine, Gryphon Minerals is encouraged by the potential to discover economic nickel sulphide mineralisation within the project area.

Exploration at the Mount Windarra project is being funded 100% by Gryphon's joint venture partner Minara Resources, as part of the required \$1,000,000 to be spent on the project within two years to earn a 70% interest in the project.

### Activities during the September Quarter

No exploration field work has been undertaken on the Mount Windarra project during the period.

## Project Generation

During the September quarter Gryphon Minerals continued to identify and review additional mineral exploration projects both in Australia and West Africa, which may offer value enhancing opportunities to Shareholders.

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

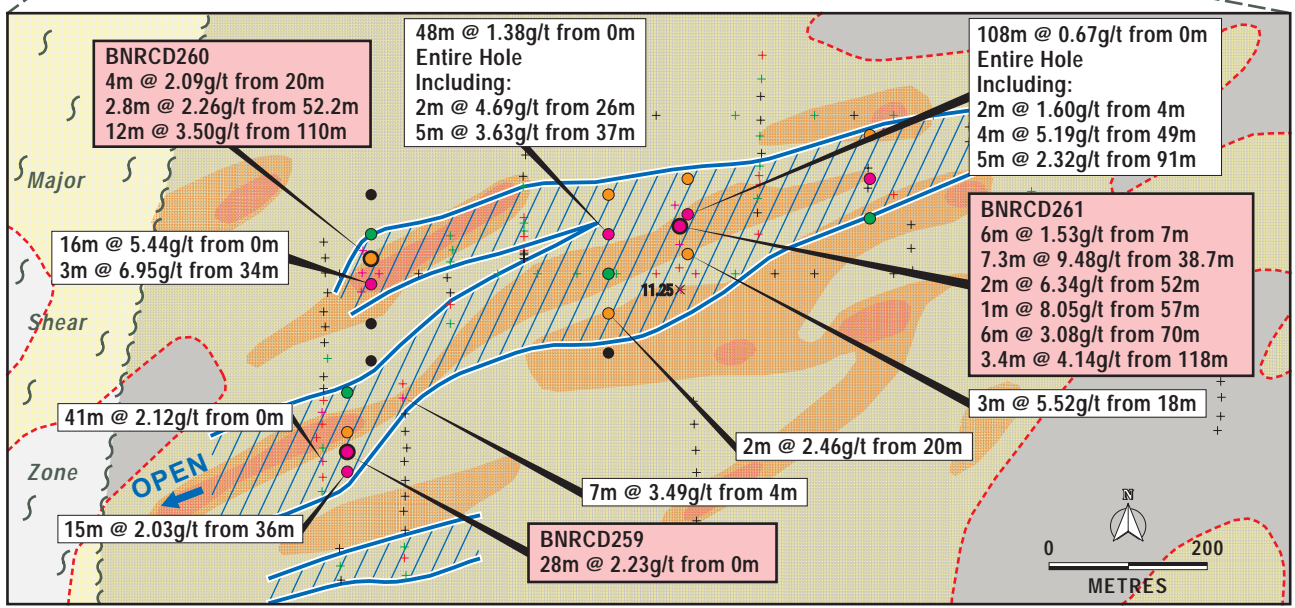
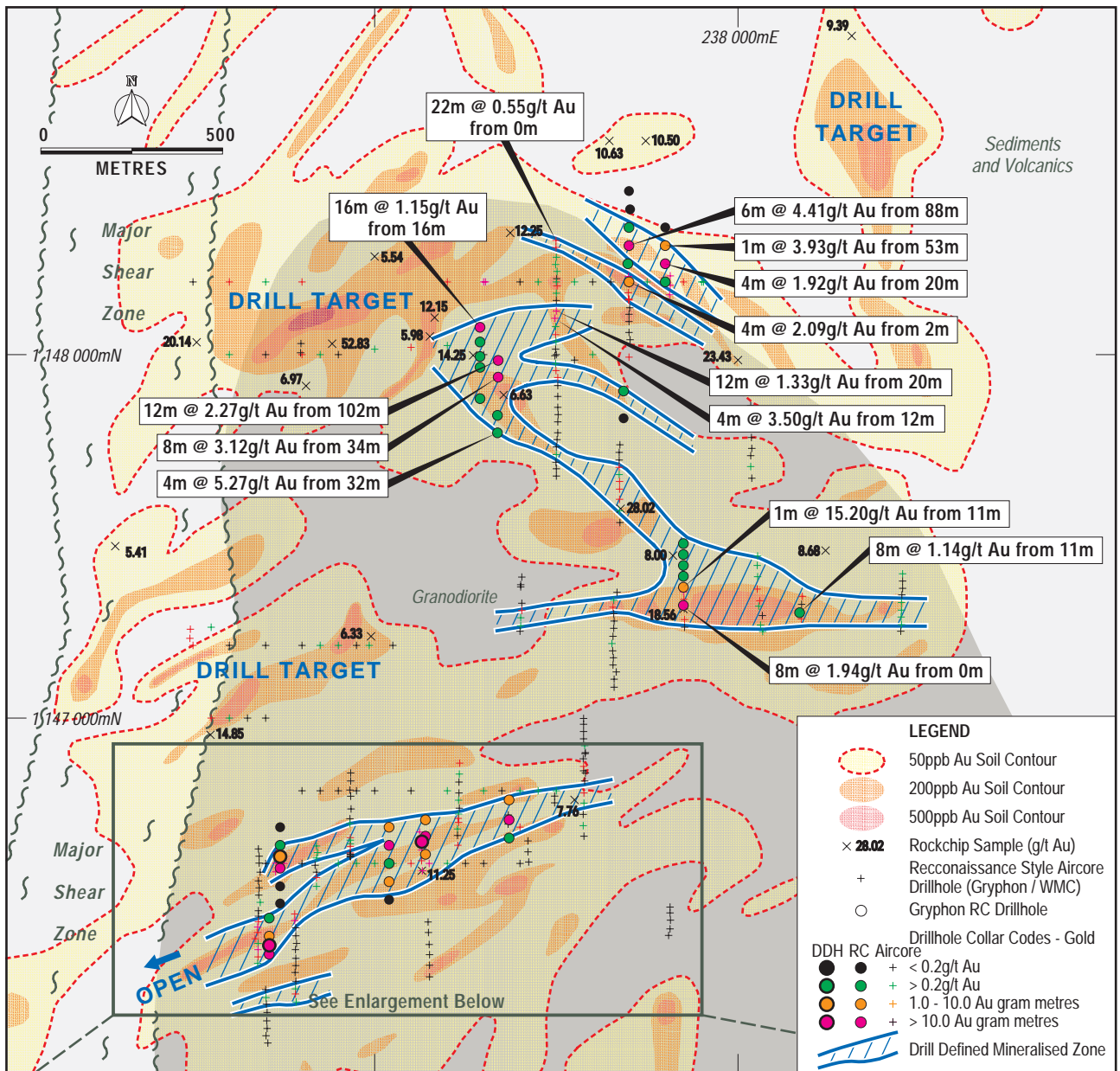
Yours faithfully

**Steve Parsons**  
**Managing Director**

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

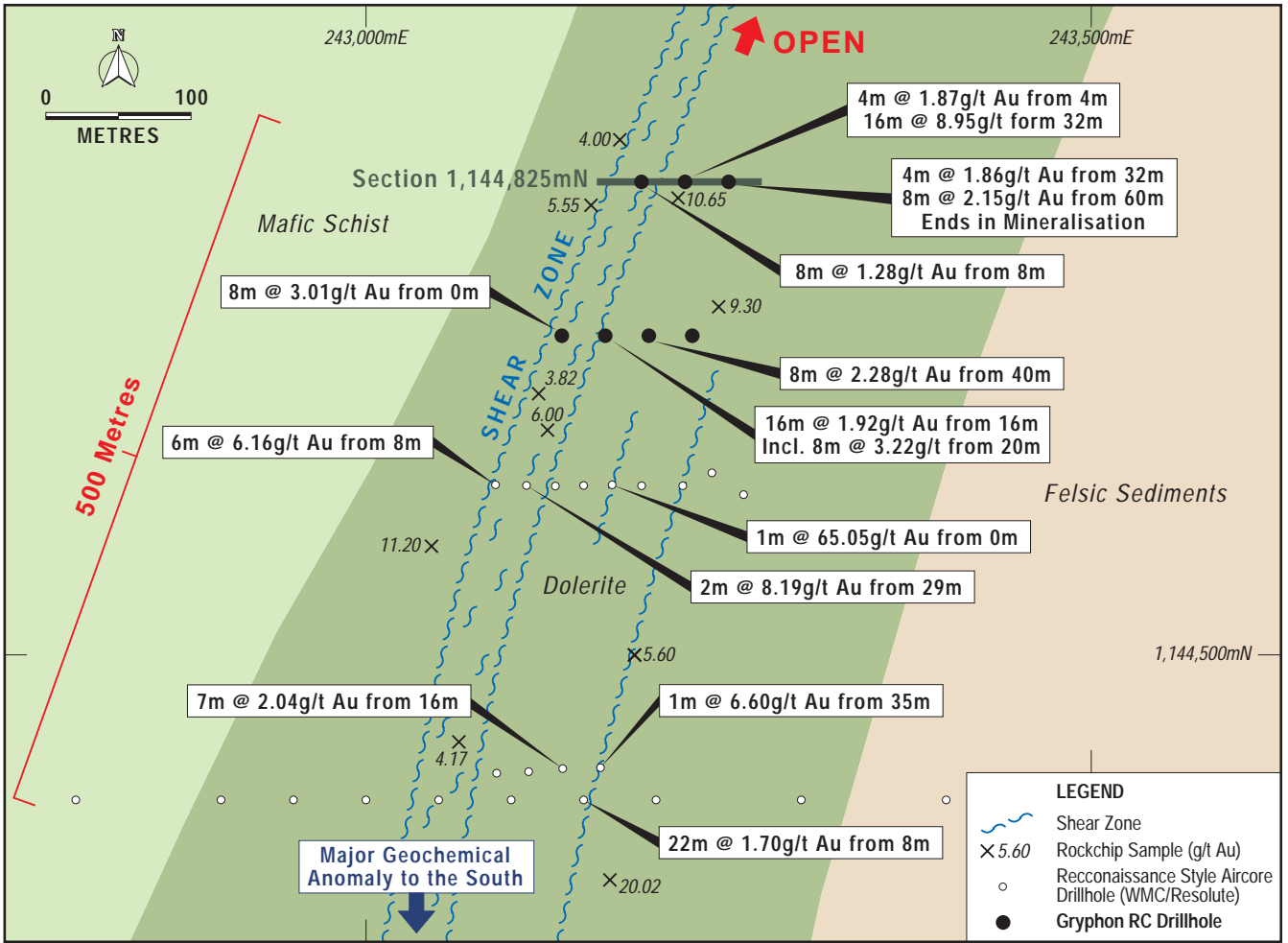
# BANFORA GOLD PROJECT

## Nogbele Prospect - Geology, Geochemistry and Mineralised Zones

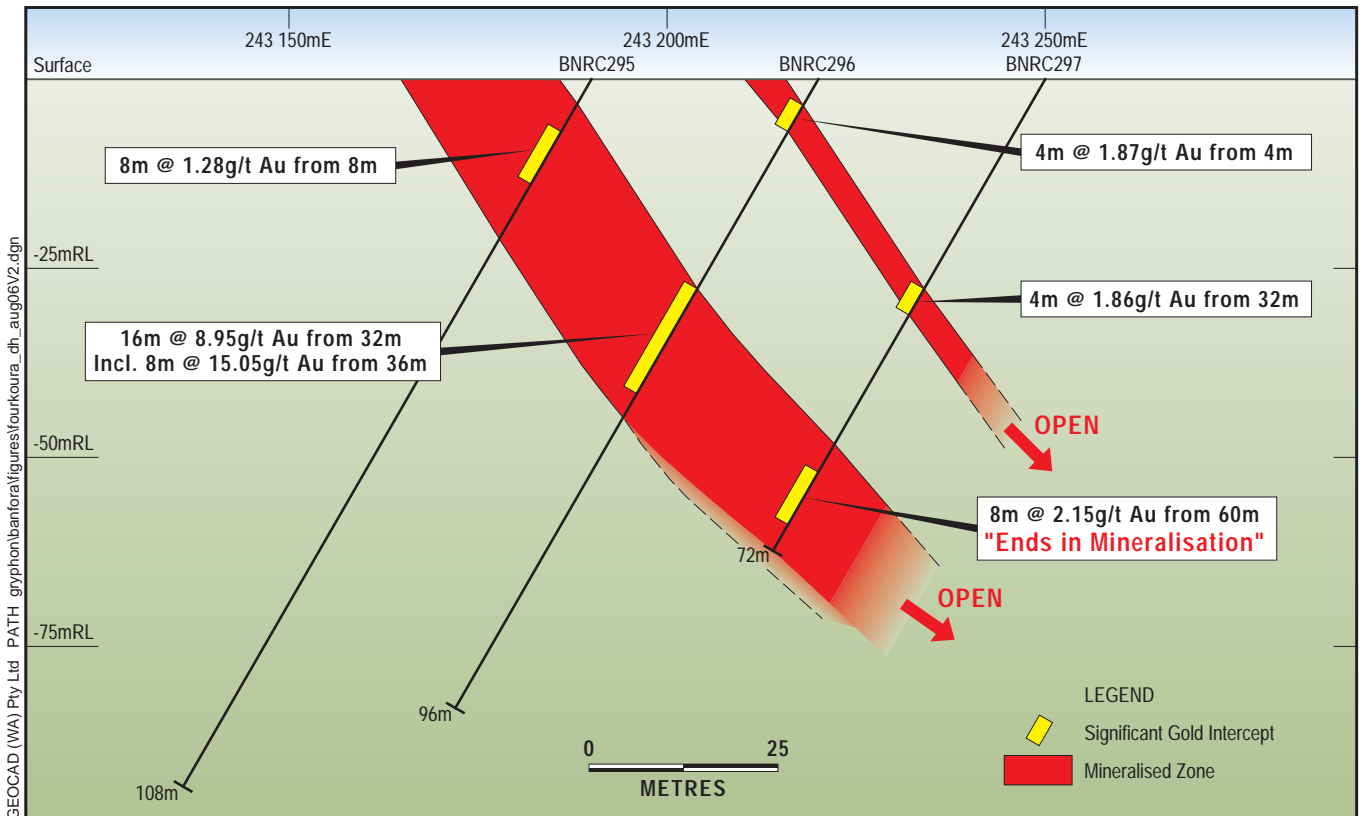


# BANFORA GOLD PROJECT

## Fourkoura Prospect - Geology and Drilling

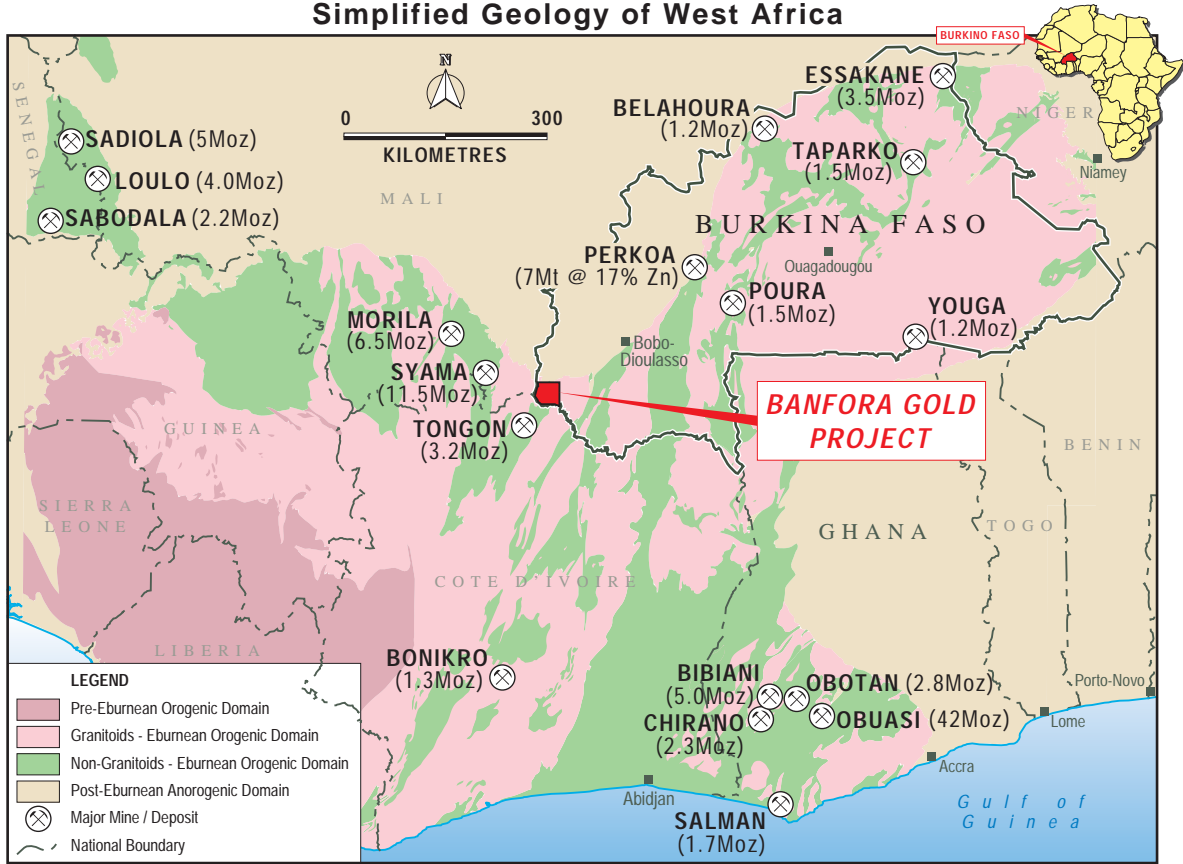


## Fourkoura Prospect - Cross Section 1,144,825mN



# BANFORA GOLD PROJECT

## Simplified Geology of West Africa



### Banfora Gold Project

