



## CORPORATE INFORMATION

Bassari Resources Limited is an Australian listed company focused on discovering and delineating gold resources which can be developed into profitable operations in the Birimian Gold Belt, Senegal, West Africa.

### FAST FACTS

ASX Code	BSR
Issued Capital	982,412,697
No of shareholders	1,664
Top 20	45%

### INVESTMENT HIGHLIGHTS

Exploration permits cover approx. 850 km<sup>2</sup> over prospective Birimian Gold Belt, Senegal, West Africa.

- Makabingui Gold Project, Mineral Resource (Prepared and disclosed under the JORC Code 2004 and remains unchanged) **1.0 million ounces in 11.9 Mt at 2.6 g/t gold at a 0.5 g/t cut-off**, comprising:
  - Indicated: **336,000 ozs in 2.6Mt at 4.0g/t**
  - Inferred: **669,000 ozs in 9.3Mt at 2.2g/t**
- Senegal, stable democracy since 1960.
- Quality ground holding in a +55M ounce gold region which hosts a number of world class deposits.
- 13 prospects identified along 80km strike length within Kedougou-Kenieba Inlier.
- Strategic and dominant exploration package.
- Gold intersected over a wide interval at Konkouto Prospect.

### BOARD AND MANAGEMENT

**Alex Mackenzie**

*Executive Chairman*

**Jozsef Patarica**

*Managing Director/CEO*

**Chris Young**

*Non-Executive Director*

**Philip Bruce**

*Non-Executive Director*

**Ian Riley**

*Company Secretary/Chief Financial Officer*

### CONTACT US

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30 April 2014

## March 2014 Quarterly Activity Report

Bassari Resources Limited (ASX:BSR) is pleased to report on its activities at the Company's gold projects in Senegal, West Africa for the March 2014 quarter.

## Highlights

### Makabingui Gold Project

- Completion of Scoping Study demonstrates robust economics
- Study summary at US\$1200/oz gold price:
  - Annual production ~ **50,000 ounces**
  - Gold grade to the mill > **6.0 g/t gold**
  - High processing recovery > **95%**
  - Cash Cost (C1) ~ **US\$700/oz**
  - Processing rate ~ **300ktpa**
  - Payback well within 12 months
- Conventional open-cut mining initially from four high grade pits
- Simple processing path with gravity and Carbon In Leach (CIL)
- Existing infrastructure including gravity plant, water dam and substantial camp enables production to be fast tracked
- Completion of Feasibility Study - Q2, 2014

### Corporate

- \$250,000 loan from Hill End Gold (ASX:HEG) converted to shares
- Share Purchase Plan (SPP) raises \$820K

## MAKABINGUI GOLD PROJECT SCOPING STUDY - SUMMARY

The Scoping Study assesses the technical and economic viability for the initial development phase of the Makabingui Gold Project which is focused on four high grade pits.

*The Mineral Resource information referred to in the announcement was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not changed since it was last reported.*

*The scoping study referred to in this report 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 extraction' in Clause 20, the JORC Code 2012 ('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 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 process 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 the Scoping Study, it must not be used to allow an Ore Reserve to be developed.*



# MINE DEVELOPMENT

## Mine Layout

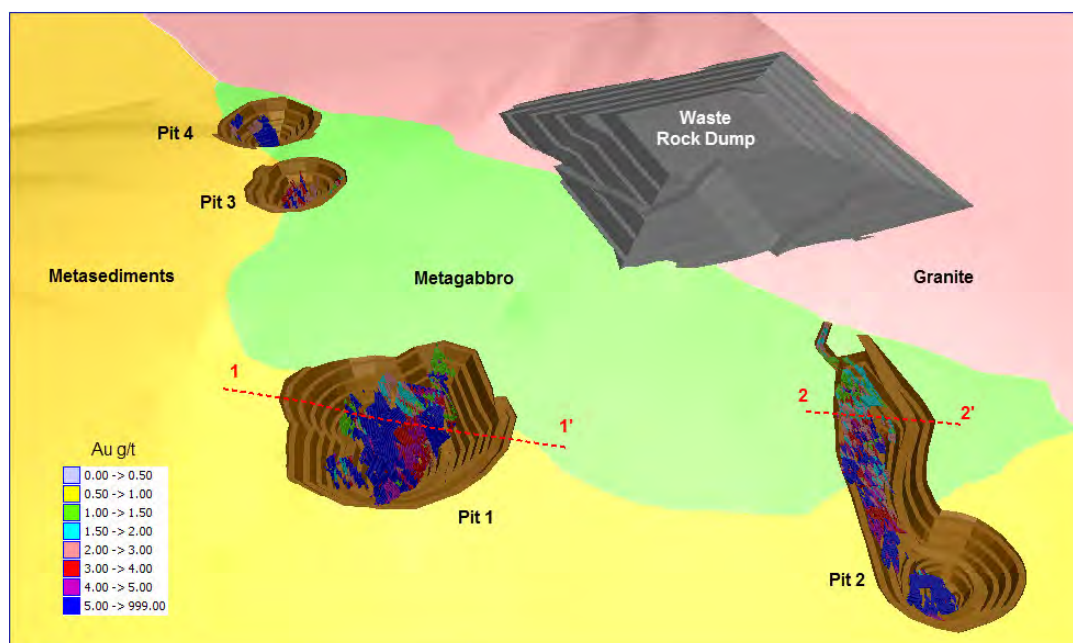
To commence mining operations utilising our existing infrastructure, equipment and 300ktpa gravity processing plant, four high grade open-cut pits have been identified, designed, and material movement schedules completed within the 1Moz ounce gold resource (refer Figure 1 & 2). The contained ounces and average grade for each pit are:

- Pit 1 – Total of ~344K tonnes at ~ 8.1 g/t gold for ~ 89,600 ounces
- Pit 2 – Total of ~318K tonnes at ~ 4.3 g/t gold for ~ 43,600 ounces
- Pit 3 – Total of ~41K tonnes at ~ 3.8 g/t gold for ~ 5,000 ounces
- Pit 4 – Total of ~47K tonnes at ~ 7.4 g/t gold for ~ 11,200 ounces

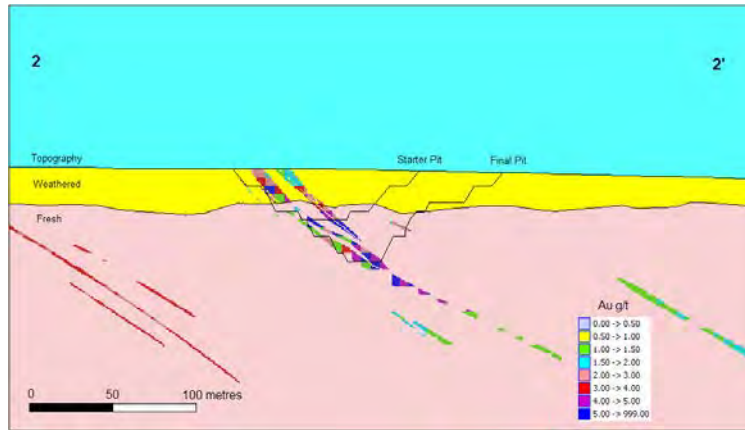
Note – these estimates are not ore reserves (refer Appendix A)

The proposed plant site location is where the existing gravity plant is situated (refer Figure 3).

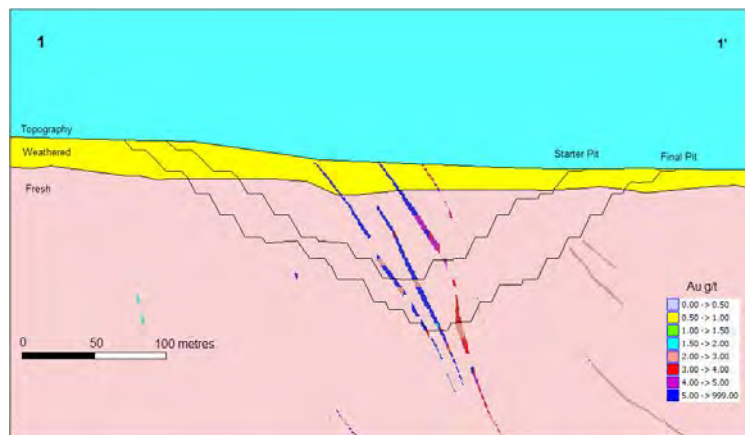
A processing throughput rate of 300ktpa has been selected to match the existing gravity plant capacity which will be incorporated into the hard rock plant. This processing rate provides the opportunity to selectively mine narrower mineralised lodes and also minimises capital costs.



**Figure 1 - Mine Plan View Showing Pits and Waste Dump**



**Pit 2 - Section 2-2'**



**Pit 1 - Section 1-1'**

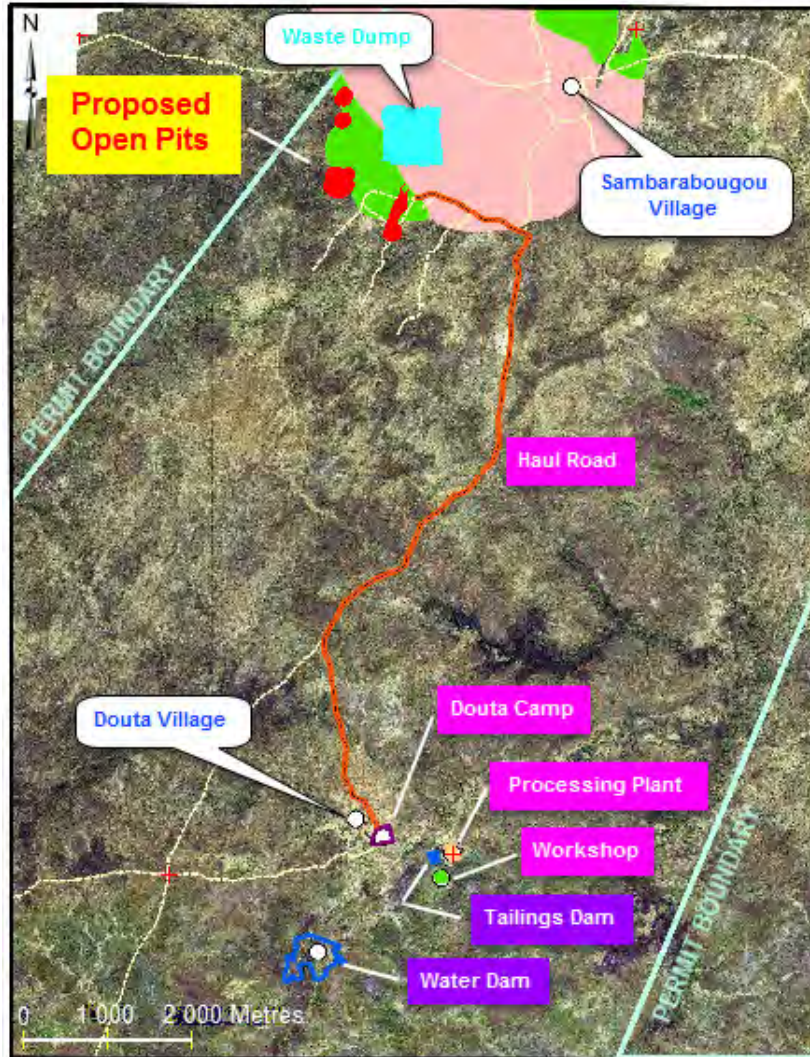
**Figure 2 - Sections 1-1' & 2-2'**

## Mining Operations

The mining schedule has been developed for an initial production rate of 300ktpa. The schedule improves the confidence level from the Whittle optimisation studies testing open-cut scenarios (see ASX Announcement 31 October 2013) given the following:

- Mining loss and dilution are now modelled to account for the variable mineralised lode widths (previous assumption of global values was a fixed dilution of 10% and fixed loss of 5%)
- Pit optimisations were developed using wall slopes based on a geotechnical review by AMC Consultants (previously an average slope of 45 degrees was assumed)
- The schedule is based on practical pit designs derived from optimised pit shells
- A mining fleet has been selected which is capable of moving the required monthly volumes of both ore and waste while achieving a high level of selectivity
- The cost of haulage of ore to the processing facility 10km south of the pits is built into the schedule (previous study did not allow for considerable haulage distances from the pits)
- The size and type of equipment selected for the mining fleet are compatible with the practical pit designs and mineralisation geometry.





**Figure 3 – Project Layout – Mine and Processing Plant**

Production and cost estimates from the scoping study pit designs and schedules indicate:

- The pit designs are able to recover all the gold mineralised lodes included in the optimised Whittle pit shells (no allowance has been made for gold depletion from artisanal activity)
- The mill head grade after modelling for loss and dilution is ~6.2 g/t gold (previous study indicated a mill head grade of ~5.5 g/t gold)
- The estimated mining cost using the assumed fleet of equipment with allowances for labour and explosives is within the US\$3.50 per tonne estimate used for the pit optimisation
- Significant opportunity exists to reduce waste mining costs which could provide a significant increase in net cash flow.

Blasting will be in a minimum bench height of 5m to achieve adequate fragmentation. Mining in the waste zones will be at full 5m height. The mining faces would advance from SE to NW working up to the hanging wall of each mineralised lode.

As mining approaches within 5-10m of a mineralised lode above the cut-off grade (COG) grade control drilling would be conducted across the lode and combined with geological mapping from the benches above to define the positions of the hanging wall and footwall.

The full bench height through the lode would be blasted with the pattern, hole size and powder factor chosen to minimise movement. An excavator would mine up to the mineralised lode and scrape off the waste to expose the hanging wall, the scraped down waste would be hauled away and the ore zone itself would be scraped down to expose the footwall waste contact. The scraped down ore would be mined and the process repeated across to the next mineralised lode.

There is good visual definition of the mineralised lodes and geological mapping of each new bench floor along with geological grade control may greatly assist grade control drilling in achieving the required level of mining selectivity.

The preferred option is for a mining contractor to conduct all site development, overburden and waste removal, open-pit mining including site rehabilitation and haulage to the processing facility. The haulage route will be on an existing established road linking Makabingui to the processing facility (road established by and currently maintained by Bassari - refer Figure 4). Mining operations will be conducted on a 24/7, 365 days per year basis.



***Figure 4 – Existing Road between Makabingui & Processing Facility***

The Company has a fleet of heavy mobile equipment and light vehicles which are available to undertake pre development works and to support mining operations. The use of this equipment was not factored into the study and hence there is opportunity to further reduce capital costs. The equipment is not new and in varying states of serviceability. Equipment includes: 1 x 14H Caterpillar Grader, 1 x WA480 Loader, 2 x Bell Trucks B40D, 1 x Doosan DX300LC Excavator, 1 x Komatsu PC450LC Excavator, 1 x Komatsu WB93R Backhoe, 1 x Toyota 22 Seater Coaster Bus, 1 x Truck & semi-trailer, 8 x Toyota 4WD's, 1 x Toyota Troop Carrier Ambulance (refer figure 5).





***Komatsu PC450LC Excavator***



***Bell B40D Truck***



***Komatsu WB93R Backhoe***



***Truck & Semi-Trailer***



***Doosan DX300LC Excavator***



***Komatsu WA480 Wheel Loader***



*Caterpillar 14H Grader*

*Toyota 4 x 4 Landcruiser*

**Figure 5 – Existing Mobile Equipment Fleet**

The equipment selection assumptions from the scoping study have a typical mining fleet including 1 x Caterpillar 345D Excavator, 2 x Caterpillar 390D Excavators, 3 x Atlas Copco ROC L8 Crawler Drills, 2 x Caterpillar 14H Graders, 1 x Caterpillar 972H Wheel Loader, 2 x Caterpillar D9T Dozers, 10 x Caterpillar 735 Trucks, 5 x Highway Trucks 14 cubic yard.

Mining staff numbers are in the order of approximately 186 people, consisting of 23 staff, 130 operators and 33 maintenance personnel.

Mining costs of US\$3.44 per tonne have been used which are inclusive of all overburden and mineralised material movements.

## **METALLURGY & PROCESSING**

### **Metallurgical Test Work Results**

The processing plant design has been finalised based on a variety of test work programs carried out by Sydney based ALS Metallurgy. Metallurgical tests to determine the gravity recoverable gold over a range of grind sizes were carried out. The test work procedure amalgamated (with mercury) a gravity concentrate at primary grind sizes of 425, 300, 212, 150 and 106 microns to determine the amount of free gold recoverable. Cyanide leaching and flotation were also carried out on the gravity tails for the 150 and 106 microns grind sizes. Previous metallurgical test work (see ASX release dated 30 January 2013) was carried out at a primary grind of 75 microns produced very high leaching recoveries >96%.

Composite samples were made up from material used as part of the January 2013 metallurgical test work program. The samples are a composite of the Metagabbro (primary focus for 2012 resource drilling program) and Metasediments hosted gold lodes. The samples were taken from multiple sections and at varying depths focused on primary (unoxidised) ore. Tables 1, 2 and 3 summarise the results for the various stages of the test work program.



**Table 1 – Summary of Gold Recovery by Gravity Separation**

Primary grind p80 micron	106	150	212	300	425
Calculated Head g/t Au	7.38	6.14	8.08	5.37	6.91
% free gold recovered	77.8	80	82.3	82.9	78.6

**Table 2 – Summary of Gold Recovery by Leaching and Flotation on the Gravity Tails**

Process	Flotation	Leaching	Flotation	Leaching
Primary grind p80 micron	106	106	150	150
Calculated Head g/t Au	1.61	1.66	1.27	1.19
% gold recovered	93.7	89.1	89.8	83.2

**Table 3 – Summary of Total Gold Recovery**

Process	% Gold Recovery	
	106 micron	150 micron
Gravity	77.8	80
Gravity + Leaching	97.6	96.6
Gravity + Flotation	98.6	98

## Gravity Gold

The initial stage of the program focused on the quantity of free gold able to be recovered by gravity methods at various primary grind sizes of 425, 300, 212, 150 and 106 microns. This was determined by grinding 2 kg samples to the required size and passing them through a 75mm Knelson concentrator, taking one bed volume of concentrate. This concentrate was examined by panning dish for the occurrence of gold flakes and then amalgamated with mercury to remove the free gold.

Figure 6 shows the free gold seen from panning the Knelson concentrate for the 106 micron primary grind test. Flakes of gold similar to those seen in this photo were seen at all the grind sizes tested with some flakes more than 1mm in size.

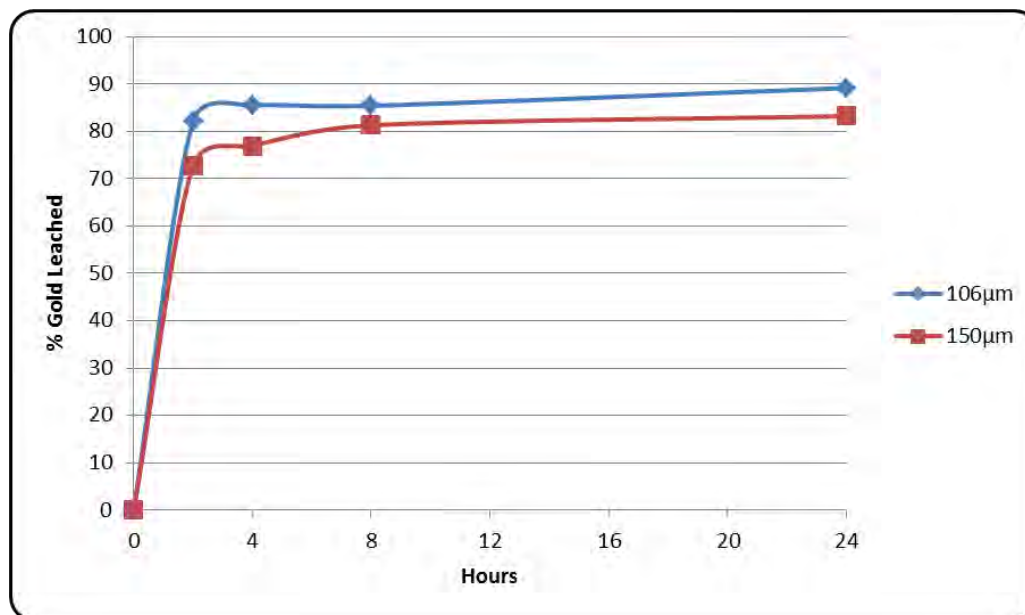


**Figure 6 - Gold Flakes in Pan Concentrate for 106 micron Primary Grind**

## Cyanide Leach on Gravity Tails

The Knelson tailings and the Knelson concentrate minus the removed free gold for the 150 and 106 micron tests were recombined and each was divided into two portions, one for cyanide leaching of gold and the other for a flotation test.

The cyanide leach test work indicated that there is a drop in leach efficiency at the 150 micron grind size compared to the 106 micron test but the results were still reasonably good at both grind sizes. Figure 7 shows the rate of gold dissolution at each grind size which is rapid and almost complete within the first 10 hours.



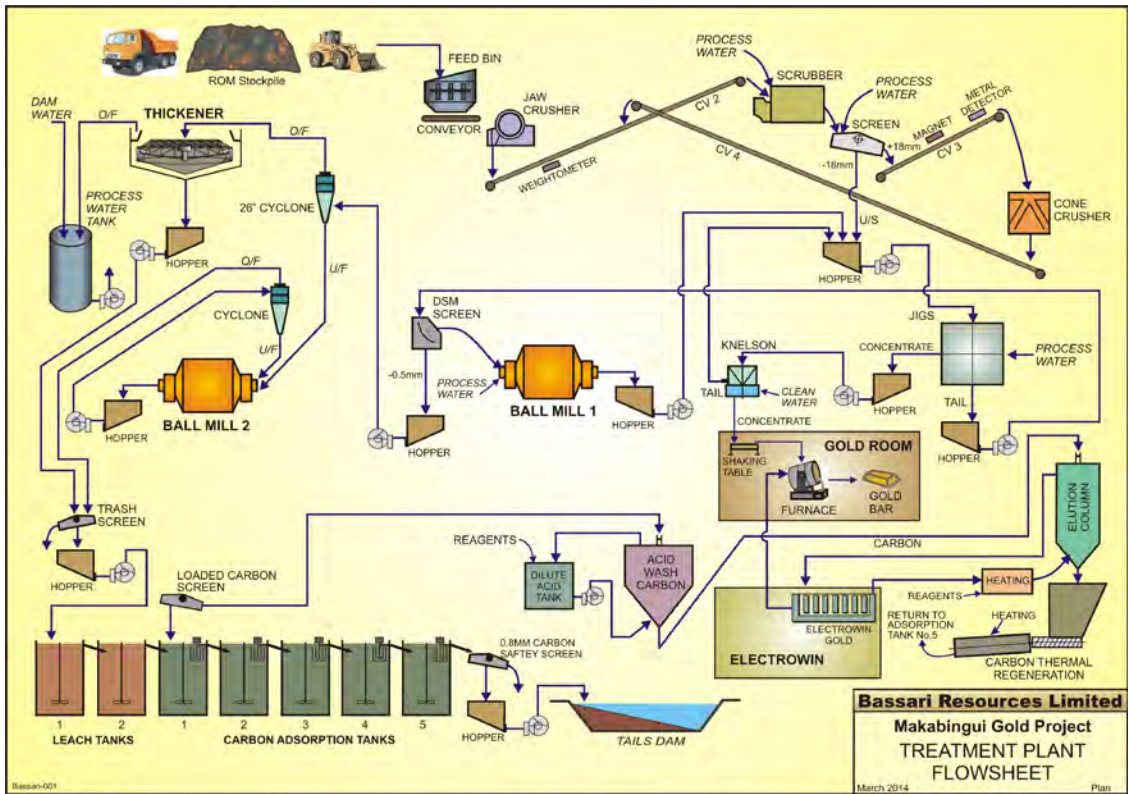
*Figure 7 - Rate of Gold Dissolution*

## Process Flow Sheet

Processing will be undertaken in two stages. Stage 1 will be a circuit aimed at maximising gravity recoverable gold with Stage 2 being a conventional Carbon in Leach (CIL) circuit (refer Figure 8).

Ore will be reclaimed by front end loader from a Run of Mine (ROM) ore stockpile and feed into a storage bin ahead of the crushing circuit. The grizzly on top of the existing feed bin will be modified to restrict plant feed to less than ~400mm. The bin will be raised to enable direct feeding to the primary jaw crusher.

Two stage crushing (jaw and cone), incorporating the existing two belt conveyors, wet scrubber and vibrating screen will produce a crushed product at 10-18mm. Screen undersize will be pumped to the existing jigs (refer Figure 9) with the jig concentrate upgraded in the existing Knelson concentrator. The Knelson tailings will recycle back to the jig feed and the Knelson concentrate will be upgraded by the existing shaking table in the gold room (refer Figure 10). The shaking table concentrate will be direct smelted in the existing dore furnace to produce gold dore bars. The shaking table tailings will be put into the regrind and CIL circuit to recover any remaining gold.



**Figure 8 – Process Flow Sheet**



**Figure 9 – Four existing gravity jigs in operation**





***Figure 10 – Existing Gold Room Shaking Table in Operation***

The jig tailings will be pumped to a screen ahead of a ball mill and the plus 400 micron material ground in the mill. The ground mill discharge will be pumped back to the jig feed for further gravity gold recovery and be in closed circuit with the screen. The screen underflow material (-0.5mm) will be pumped to a cyclone where the underflow will feed direct to another ball mill which will operate in closed circuit with a cyclone to produce an overflow of 80% passing 150 micron. The cyclone will be combined with the thickened slimes from the gravity stage thickener and feed a vibrating trash screen to remove any coarse 0.8mm trash material.

The trash screen undersize will be pumped to the first leach tank in the CIL plant which will consist of two 225m<sup>3</sup> leach tanks and five 225m<sup>3</sup> carbon adsorption tanks. The total cyanide leach and adsorption time will be approximately 24 hours. The tailings from the last adsorption tank will discharge over a vibrating carbon safety screen and any carbon recovered will be carried back into the adsorption tank.

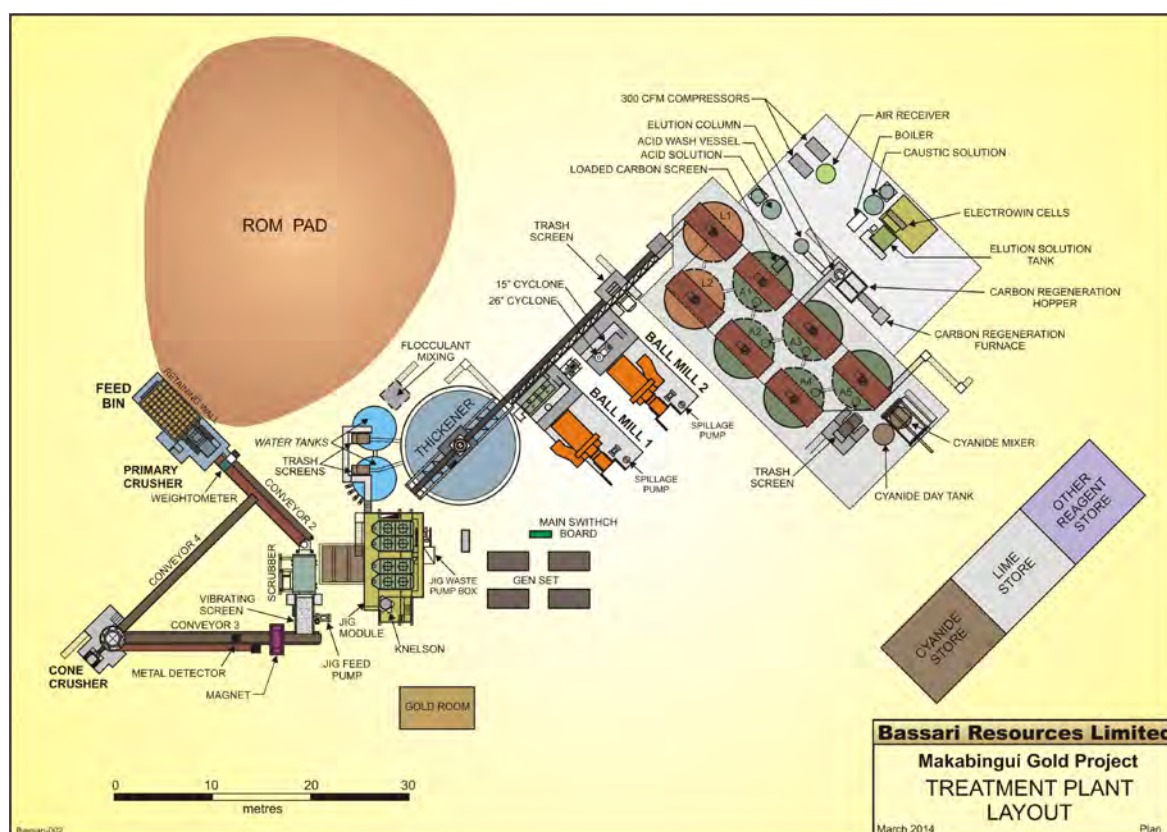
Loaded carbon from the circuit will go through a carbon stripping process with gold desorbed from the carbon and the pregnant solution passed through electro winning cells with steel wool. The steel wool will be regularly removed and acid washed to dissolve the steel wool and leave a gold sludge that will be rinsed with water, filtered and dried. The dried gold concentrate will be smelted with fluxes in the existing furnace to produce gold dore bars. The processing plant layout is shown in Figure 11.

Two existing tailings storage facilities which were used during the previous gravity plant operations are able to be cleaned out and made available for commissioning the gravity circuit as the material has dried and consolidated (refer Figure 12). The CIL tails facility is assumed to be located within a 1km distance from the processing facility with tailings and return water pipelines to be located in the same bunded corridor. The exact location of the CIL tails facility will be determined during the definitive study phase.

The processing plant will operate 24/7, 365 days of the year with a design availability of 90%. The treatment rate will be 38tph to achieve a throughput rate of 300ktpa.

Processing staff numbers are in the order of approximately 37 people, consisting of 2 staff, 30 operators and 5 maintenance personnel.

Processing costs inclusive of maintenance have been assumed at \$US30.00 per tonne in line with the previous optimisation study; however there is opportunity to reduce the overall cost during the feasibility study which would allow an increase in net cash-flow.



**Figure 11 – Processing Plant Layout**





***Figure 12 – Existing Tails Dam When First Constructed***

### **Existing Gravity Plant**

Given the high gravity recovery the hard rock plant will incorporate the Company's existing gravity plant and associated infrastructure already established in Senegal. Utilising the existing gravity plant reduces the capital cost considerably. The plant is currently on care & maintenance (refer Figure 13 & 14).



***Figure 13 - Gravity Plant Located at Douta – 300ktpa Capacity***





**Figure 14 - View of gravity plant from 26 inch cyclone tower**

## Existing Infrastructure

Considerable infrastructure exists from previous operation of the gravity plant. Infrastructure to support the hard rock operations is detailed below:



**Figure 15 – shows sections of the 120 person Douta Camp, which includes offices, kitchen/dining hall, laundry and ablution/shower block. Within the camp compound there is a core shed, core cutting facility, light vehicle maintenance workshop, water sterilisation plant, fuel storage facility and medical centre.**



**Figure 16 – shows the water storage dam (~500 Mega-litre) used for water supply to the processing plant. The dam is currently full.**



**Figure 17 – Douta Medical Centre within Douta Camp compound**





*Figure 18 – shows the heavy vehicle maintenance workshop used to service the heavy equipment mobile fleet.*



*Figure 19 – shows the 85,000 litre diesel fuel farm within the Douta Camp.*





**Figure 20 - shows the two Wilson 350kva gensets (1 duty, 1 standby) providing power to the Douta Camp.**



**Figure 21 - shows the core shed within the Douta Camp compound.**

## OPERATIONS MANAGEMENT – HUMAN RESOURCES

The majority of the workforce required for both the plant upgrade construction and operational phases of the project will be sourced from within Senegal. The operation will be a drive-in/drive-out arrangement with the company providing a bus service between Dakar and site. The service will provide transport for employees from the local townships of Kedougou, Tambacounda and other regional towns on route. The majority of the workforce will be hired locally from the region where possible and local employees will meet their own accommodation requirements.

With people experienced in operating the gravity plant previously and the Sabodala Gold Mine having been in operation since 2009 it is expected that there will be skilled and experienced people within the region.

## CAPITAL COST

The major capital cost component for the project is the upgrade of the existing gravity plant to treat hard rock and incorporate a CIL circuit. The process flow sheet and engineering design has been carried out by Timora Pty Ltd (“Timora”), an independent consultant with extensive experience in this type and scale of plant. Timora designed and was involved in the construction of the existing gravity circuit.

Australian Mine Design & Development (AMDAD) carried out the pit designs and developed the mining schedules for ore and waste movements and carried out the preliminary Whittle open pit optimisation studies.

Major equipment costs were based on a combination of budget quotes, knowledge of similar projects and in country experience from building the existing gravity plant.

The CIL tailings facility has been estimated assuming US\$1.00 per tonne of ore processed.

Capital Cost Estimate:

Processing Plant Upgrade	
Stage 1 - Gravity Plant	~\$2.2M
Stage 2 - Carbon in Leach	~\$3.0M
Mine Pre Development	~\$3.2M
Tailings Facility	~\$0.8M
First Fill & Spares	~\$0.6M
<b>Total</b>	<b><u>~\$9.8M</u></b>

Notes:

- Processing plant upgrade cost estimates are inclusive of Engineering, Design & Management at 12% of capital costs
- No contingency has been applied
- Mine pre-development allows for four months of mining to build an adequate ROM stockpile prior to processing commencing
- No allowance for working capital, owner's costs and Feasibility Study

## **OPERATING COSTS**

The following operating cost assumptions were used for the study:

- Mining operating costs - US\$3.44 per tonne
- Processing operating costs - US\$30.00 per tonne
- Site fixed costs - US\$10.00 per tonne

Costs have been derived from bench marking similar operations and consultant databases for similar projects.

## **PATH FORWARD - FEASIBILITY STUDY**

The next phase of the project is the completion of a Feasibility Study, approval of an Environmental and Social Impact Assessment by Senegalese authorities and application for a Mining Concession.

The Scoping Study has established the preferred mining method and pit configurations. An effective method of mineral processing has been established and the upgrade to the existing gravity plant has been designed. Given the level of existing infrastructure in place and previous operating experience in country it is planned that a feasibility study to a definitive level will be fast tracked as the next step.

## **PROJECT FUNDING**

The Company is considering a number of options to fund the development of the Makabingui Gold Project. The robust economics demonstrated by the Scoping Study improved the positive pre-development results from Whittle optimisations. The Company now has a strong case to present to potential financiers to fund the project.

The low capital cost, high grade (>6.0 g/t gold) & metallurgical recovery (>95%), strong cash flow and rapid capital payback present a unique opportunity.

## **SENEGAL**

Senegal has established itself as an attractive country for gold exploration, having a stable, democratically elected government and highly prospective geology. Presidential elections were held as recently as March 2012 which saw the election of a new president and effective change of government. Both the elections and the transition of power were managed seamlessly.

Senegal is located in the north and far west of Africa on the Atlantic coast, with neighbouring countries Mauritania to the north, Guinea to the south and Mali to the east (refer Figure 22). The small country of The Gambia is located through the southern part of Senegal from the coast. Senegal is a relatively small country, approximately the size of Victoria (Australia), and has a population of ~12 million. The capital of Senegal is Dakar situated at the western-most point on the coast.





**Figure 22 - Location of Senegal, West Africa**

Senegal gained its independence from France in 1960 after 75 years of French rule. Senegal is governed by a multiparty democracy based on the French civil law system. The official language of Senegal is French. For this reason, Senegal is the location of choice of many foreign embassies and international banks as the headquarters for the West African region.

## **PROJECT LOCATION**

Bassari holds a 70% interest in each of three contiguous exploration permits; Sambarabougou, Moura and Bounsankoba, covering approximately 850 km<sup>2</sup> in a central location of the highly prospective Birimian Kenieba Inlier (refer Figure 23 & 24). The permits are located approximately 750 km east of Senegal's capital city of Dakar and about 70km north east of the town of Kedougou, and span 80km strike length of parts of a major crustal shear zone, the Main Transcurrent Shear Zone (MTZ), a well-defined gold mineralised structural corridor. The Kenieba Inlier is host to several multi-million ounce gold deposits and extends into the bordering countries of Mali and Guinea.

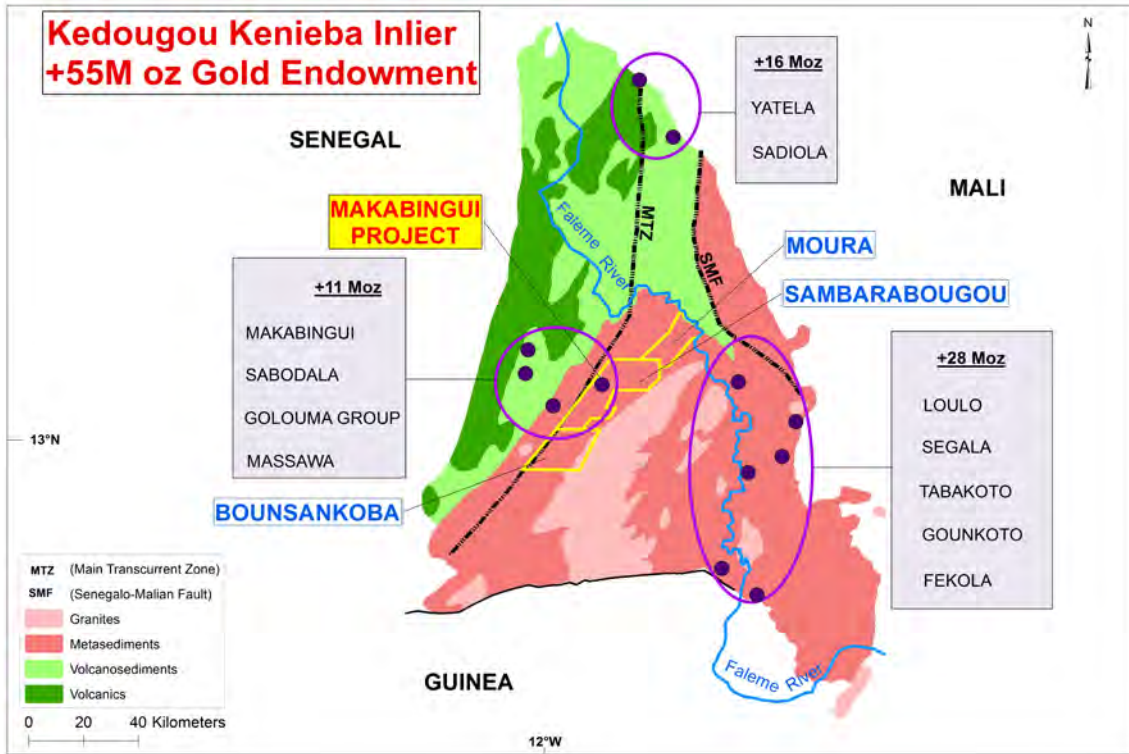


Figure 23 – Kedougou-Kenieba Inlier

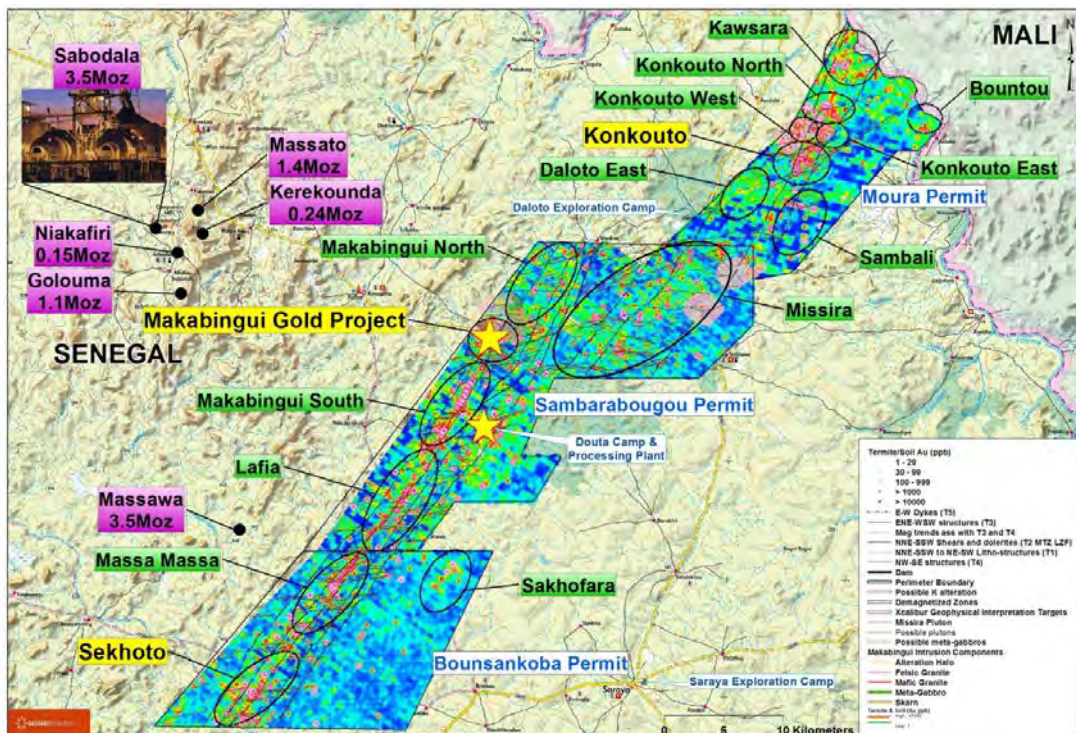


Figure 24 – Bassari's Permits With Project & Prospect Locations

## SENEGAL & MINING

Senegal is focused on attracting more investment in mining to support the growth of the country. At the World Economic Forum held in Davos, Switzerland on 24 January this year Senegalese President Macky SALL was quoted as saying: “Mining will be one of Senegal’s pillars of development. We’re committed to putting all the conditions in place to attract companies, have an adequate working environment, a renewed mining code.”

Senegal’s Gross Domestic Product (GDP) of ~US\$14 billion is the largest economy after Ivory Coast in the eight-nation West African Economic & Monetary Union (a group of French speaking nations that use a common currency).

The Mineral Policy Statement sets out the major objectives for the development of mineral resources in the country and promotes international principles necessary to encourage foreign investment inflows into the national economy. The Mineral Policy Statement provides for:

- Diversification of mineral production and beneficiation of mineral products ahead of encouraging exports
- Lawful rights and interests of investors guaranteed. Foreign investors to be treated no less favourably than similar domestic investors
- Sustainability of mining and protection of the environment
- Implementation of appropriate information management systems for management of mineral resources with other resources such as land, forest reserves and water, having regard for environmental and social issues.

Senegal established a Mining Code in 2003 aimed to attract and foster mineral resource investment and development in the country. There are three fundamental mineral rights, the exploration permit, the exploitation permit and the mining concession. Terms of the mineral rights under the Mining Code are shown in Appendix B.

The adoption of the Mining Code led to more extensive exploration activity. Also, the operation of the Country’s first large-scale gold mine at Sabodala is evidence of Senegal’s growing importance as a centre for gold exploration and production. The Sabodala Gold operation was commissioned in 2009 and is located approximately 25km from the Makabingui Gold Project. Access to Sabodala is via the same road links for transport of people, equipment and consumables that will be used to support the Makabingui Gold Project. The environment in Senegal is favourable, with accessible terrain, generally low growing Savannah style vegetation, and a subtropical-to-arid climate. Basic infrastructure has been established across the country. Bassari’s permit areas may be accessed by all-weather sealed road from Dakar via the regional centre of Tambacounda and the town of Kedougou for all but the final ~30km (refer Figure 25).





*Figure 25 – High Quality Sealed Road from Dakar*

## **ENVIRONMENTAL & COMMUNITY IMPACT**

Bassari has undertaken considerable community development initiatives in recognition and respect of the country's culture, values and traditions. Initiatives include constructing a school and medical clinic, providing fresh water pumps and a grain mill to the community (refer Figure 26). Other completed infrastructure projects include building of roads and bridges, provision of power and establishing water dams. People from the local region are employed with a strong focus on skills development and transfer of knowledge.

Previous environmental and community works related to operating the gravity circuit at Douta have involved:

- Hydrological Study
- Environmental and Social Impact Assessment
- Public Meetings.

The Feasibility Study will focus on updating all previous studies undertaken to incorporate the Makabingui Gold Project.



*Water*



*School*



*Agriculture*

*Figure 26 – Community Support & Initiatives*

## **GOVERNMENT AND COMMUNITY PARTNERSHIP**

The Company works closely with the Senegalese Department of Mines & Geology and departments within the Ministry that are concerned with monitoring the progress of the project. Bassari is encouraged by the strong support shown for the development plans of the Makabingui Gold Project as evidenced by the special three year extension of the Sambarabougou Exploitation Permit late last year (see ASX Announcement 5 September 2013).

Bassari, through its team in Senegal has established very strong local relationships with the communities. The Company has undertaken significant exploitation activities across multiple prospects and projects, substantial resource drilling programs and previous operations of the gravity plant at Douta. Bassari's current in-country team is made up of 100% Senegalese nationals and joint venture partnerships are with local Senegalese companies. Supporting the social development initiatives of local communities is integral to the way Bassari operates in Senegal.

## **MINERAL RESOURCE**

The Makabingui Gold Project Mineral Resource of **1 million ounces** of gold in **11.9 million tonnes at 2.6 g/t gold**, at a cut-off grade of 0.5 g/t gold, was announced in December 2012 (Refer ASX Announcement 4 December 2012) following estimation by AMC Consultants Pty Ltd (AMC). This includes an Indicated Resource of **336,000 ounces** of gold in **2.6 million tonnes at 4.0 g/t gold** (prepared and disclosed under the JORC Code 2004 and remains unchanged). Refer Appendix C.

Makabingui comprises a large number of generally shallow east dipping zones of gold mineralisation and quartz veins hosted by a gabbroic intrusive and contact metasediments. This mineralisation is associated with quartz veins and stockworks with silica, sericite, biotite and carbonate alteration together with variable amounts of the sulphides pyrite and arsenopyrite. Mineralised structures occupy an area of some 1,700m by 1,200m, to a depth of 370m below surface.

A Mineral Resource estimate for the Makabingui deposit was completed during November 2012 utilising a digital 3D block model estimation incorporating the assay results of 384 drillholes. The drillholes are a mixture of rotary air blast (RAB), reverse circulation (RC), RC with diamond drill core (DD) tails and DD. The RAB holes have been used in the geological interpretation but omitted from the block model estimation due to the possibility of sample contamination down hole. The average drill spacing across the deposit is 100m by 50m to a depth of 130m, with 100m by 100m near the edges. There are two central areas where the drill spacing is 25m by 25m.

The interpretation was completed on 1,074 drillholes using a sectional method and a cut-off grade 0.2 g/t gold. These sections were linked to form three dimensional shells which were then filled with parent block model cells of 5m by 25m by 5m in east, north and RL respectively. Grade domains representing either 0.2 g/t to 0.5 g/t gold, or >0.5 g/t gold were allocated to the block model. This was done by flagging the length weighted average mineralised intervals down the hole by domain and then using the nearest neighbour (NN) estimation method to assign a domain code to the block model.

A statistical review of the drillhole data was completed. A top cut at 100 g/t gold (99.5 percentile), was used. The samples were composited to 1m within each domain. The drill data was transformed using a normal score transformation to generate semi-variograms. The block model was estimated using parent cell estimation and Ordinary Kriging (OK). NN was used to estimate the grades in the block model not informed by the OK estimation. The input sample file used in the NN estimation was the estimated block model output from the OK estimation. Length weighted density was calculated for the oxide material and for the primary material based on 19,762 measured for density using the Archimedes Principle. A density of 1.7 t/m<sup>3</sup> was used for the oxide and 2.6 t/m<sup>3</sup> was used for the primary material.

The mineralisation exhibits geological and grade continuity at a 0.2 g/t gold cut-off grade and was classified according to the JORC Code 2004 based on domain and drillhole spacing. A drill density of 25m by 25m to a depth of 170m below surface for the >0.5 g/t gold domain was classified as Indicated. Additionally a drill density of 25m by 25m >0.2 g/t gold < 0.5 g/t gold above 80m below surface was also classified as Indicated. The 25m by 25m >0.2 g/t gold < 0.5 g/t gold below 80m from surface was classified as Inferred due to the higher risk associated with such low grade material. All mineralisation estimated on a drillhole spacing greater than 25m by 25m has been classified as Inferred.

Artisanal miners are active at Makabingui across the deposit and no allowance has been made for gold depletion.



## STRATEGIC EXPLORATION PACKAGE – PLENTY OF UPSIDE

Bassari is extremely positive of the much larger exploration potential that exists within close proximity to both the Makabingui Gold Project and also within the three contiguous permits (Refer Figure 24).

Artisanal activity established within the Makabingui Project area south of the existing resource has identified potential for multiple new areas of mineralisation within a significant NE trending shear zone, and further highlights the prospectivity of Makabingui (refer Figure 27). Previous broad spaced drilling (both RAB and RC) has returned significant gold intercepts which combined with the level of artisanal activity are worthy of rapid follow-up.

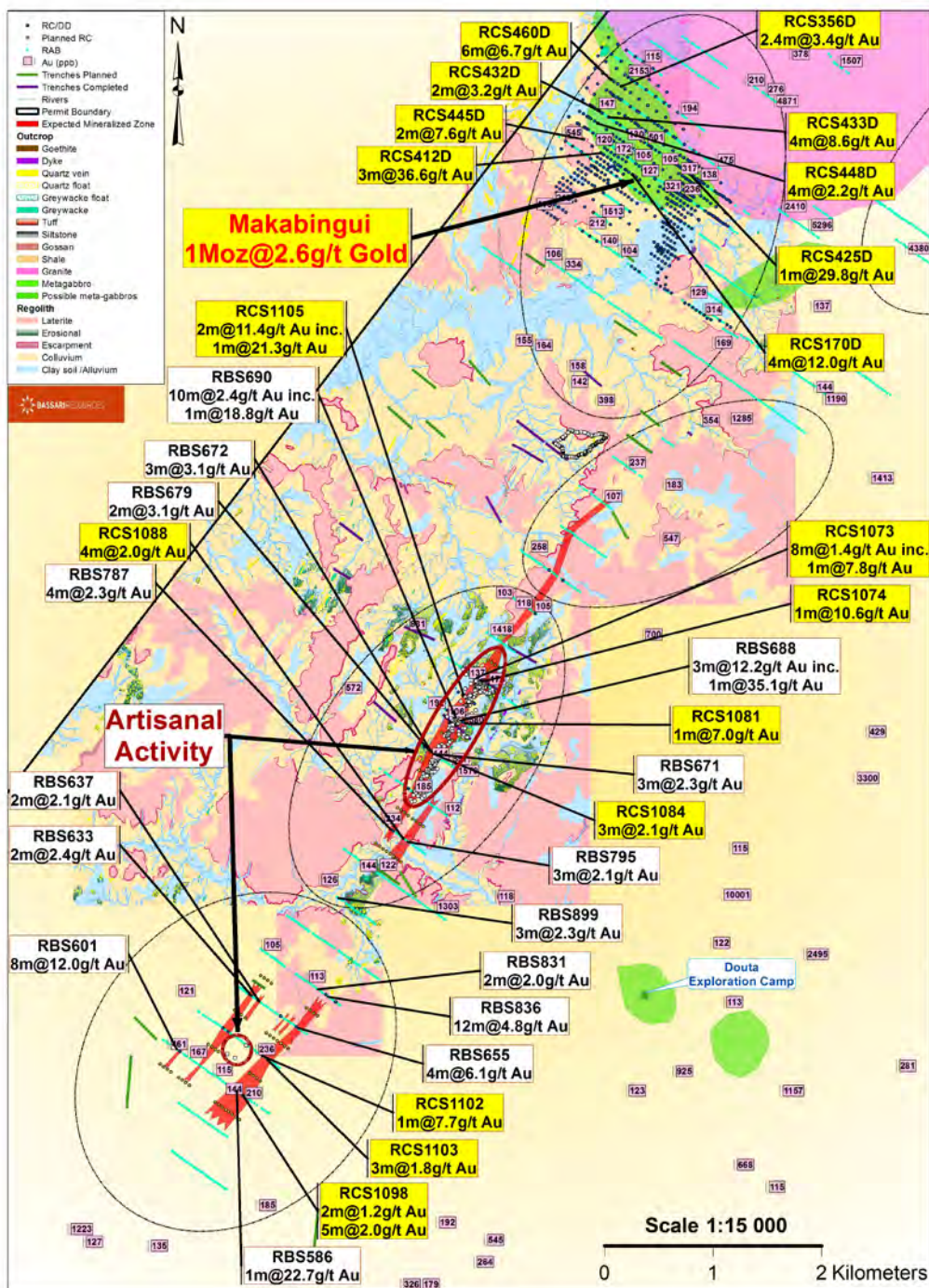


Figure 27 – Makabingui & NE Trending Mineralised Zone

## Corporate

### Constitution

Bassari amended its constitution by special resolution of shareholders at a General Meeting held on 12 March 2014.

### Share Purchase Plan

The Share Purchase Plan (SPP) closed Friday, 7 March 2014 and raised \$820,400. A total of 95,395,423 shares were issued under the SPP at a price of \$0.0086 (0.86 cents) per each ordinary share, which represents a discount of 12.5% to the volume weighted average price (VWAP) of the Company's shares sold on ASX over the five days immediately prior to and including the closing date.

### Hill End Gold Loan Facility

In March, Hill End Gold Limited (HEG) elected to convert \$250,000 of previously announced loan funding, by the issue of 31.25 million ordinary shares at an issue price of 0.8 cents each ordinary share.

### About Bassari

*Melbourne - based West African gold explorer Bassari Resources Limited (ASX:BSR) has a strategic portfolio of exploration permits focused on the Birimian Gold Belt in Senegal. The permits cover an area of 850 km<sup>2</sup> with 80 km of strike along the combined three contiguous permits. The permits are located within the Kenieba Inlier which is a +55M ounce gold region. Bassari's vision is to discover and delineate gold resources which can be developed into profitable operations.*

### Forward-Looking Statement

*This release may include forward-looking statements which are based on assumptions and judgements of management regarding future events and results. Statements regarding Bassari Resources Limited plans with respect to future exploration and drilling are forward-looking statements. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Bassari Resources Limited that could cause actual results to differ materially from such statements. Bassari Resources Limited makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release.*

### Competent Persons Statement

*The technical information in this report related to open cut designs has been sourced from Australian Mine Design and Development Pty Ltd (AMDAD) Report 1723-1402 and reviewed by Mr John Wyche (author of the report).*

*The technical information in this report related to metallurgical test work and comminution test work has been sourced from ALS Metallurgy (New South Wales – Sydney) Report M2867 and reviewed by Mr T Baily (author of the report).*

*The information in this announcement that relates to the Mineral Resources and Exploration Results has been reviewed and approved by Mr Chris Young who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Young is a non-executive director and consultant to Bassari Resources Limited and has over 40 years' experience in the industry and has more than five years' experience which is relevant to the style of mineralisation being reported upon and the activity 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 Young consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.*

**Technical Terms**

<b>g/t</b>	<i>grams per tonne</i>
<b>CIL</b>	<i>Carbon In Leach</i>
<b>Mt</b>	<i>Million tonnes</i>
<b>K</b>	<i>Thousand</i>
<b>M</b>	<i>Million</i>
<b>Mtpa</b>	<i>Million tonnes per annum</i>
<b>ktpa</b>	<i>Thousand tonnes per annum</i>
<b>tpa</b>	<i>tonnes per annum</i>
<b>RAB Drilling</b>	<i>Rotary Air Blast drilling.</i>
<b>RC Drilling</b>	<i>Reverse Circulation drilling</i>
<b>DD Drilling</b>	<i>Diamond drilling</i>
<b>ppb</b>	<i>parts per billion, e.g. 1000 ppb gold is 1 g/t gold</i>
<b>ppm</b>	<i>parts per million</i>
<b>km<sup>2</sup></b>	<i>square kilometres</i>
<b>km</b>	<i>kilometres</i>
<b>mm</b>	<i>millimetres</i>
<b>m</b>	<i>metres</i>
<b>tph</b>	<i>tonnes per hour</i>
<b>t/m<sup>3</sup></b>	<i>tonnes per cubic metre</i>
<b>Au</b>	<i>Chemical symbol for gold</i>
<b>Oz</b>	<i>ounces</i>
<b>MTZ</b>	<i>Main Transcurrent Zone</i>
<b>GDP</b>	<i>Gross Domestic Product</i>
<b>3D</b>	<i>Three dimensional</i>
<b>COG</b>	<i>Cut-off grade</i>
<b>kg</b>	<i>kilogram</i>
<b>NE</b>	<i>North East</i>
<b>SE</b>	<i>South East</i>
<b>ENE</b>	<i>East North East</i>
<b>NW</b>	<i>North West</i>
<b>NNE</b>	<i>North North East</i>
<b>SSW</b>	<i>South South West</i>
<b>ASX</b>	<i>Australian Securities Exchange</i>
<b>C1</b>	<i>The costs of mining, milling and concentrating, onsite administration and general expenses, property and production royalties not related to revenues or profits, metal concentrate treatment charges, and freight and marketing costs less the net value of the by-product credits.</i>
<b>p80</b>	<i>80% passing (size)</i>



## Appendix A

The scoping study used a Mineral Resource made up of a combination of indicated and inferred resource blocks. Inclusion of inferred resource blocks and information pending to support some other aspects of the mine plan means that the pit quantities and grades cannot yet be regarded as an ore reserve. The total ounces and split between classifications is detailed in the table below.

Pit	Classification	Tonnes	Grade Au g/t	Ounces Au
1	Indicated	334,070	7.89	84,753
	Inferred	9,741	15.16	4,747
	<b>Sub Total</b>	<b>343,811</b>	<b>8.10</b>	<b>89,500</b>
2	Indicated	316,906	4.27	43,533
	Inferred	1,315	1.81	77
	<b>Sub Total</b>	<b>318,221</b>	<b>4.26</b>	<b>43,609</b>
3	Indicated	0	0.00	0
	Inferred	41,313	3.79	5,035
	<b>Sub Total</b>	<b>41,313</b>	<b>3.79</b>	<b>5,035</b>
4	Indicated	0	0.00	0
	Inferred	46,892	7.41	11,173
	<b>Sub Total</b>	<b>46,892</b>	<b>7.41</b>	<b>11,173</b>
Total	Indicated	650,976	6.13	128,286
	Inferred	99,261	6.59	21,031
	<b>Total</b>	<b>750,237</b>	<b>6.19</b>	<b>149,317</b>

## Appendix B

### Tenement Terms under the Mining Code

Description	Reconnaissance Permit	Exploration Permit	Exploitation Permit	Mining Concession
Fee	Free	Prescribed	Prescribed	Prescribed
Maximum size (sq km)	Not stipulated	Not stipulated	Boundaries of the deposit	Boundaries of the deposit
Duration	6 months	3 years	≤ 7 years	5-25 years
Renewal	1 x 6 months	2 x 3 years	≤ 7-year periods	≤ 25-year periods
Relinquish areas	Not stipulated	25%	Not stipulated	Not stipulated
Minimum spending	According to program	According to program	According to program	According to program
Rights	No pre-emptive right	Moveable, Transferable, Transmissible Retention permit (2 years)	Moveable, Transferable, Transmissible Retention permit (2 years)	Moveable, Transferable, Transmissible Retention permit (2 years)
Restrictions	Not exclusive, not transferable, no customs or tax privileges	Indivisible	Some	Some

Modelling assumptions:

- Mining Royalty of 3%
- Import duties and taxes – exempt
- Property tax – exempt
- Turnover tax – exempt
- Value added taxes – exempt
- Export taxes – exempt
- Corporate income tax - tax free period of 7 years
- Tax on fuel – exempt

## Appendix C

### Makabingui Mineral Resources

Classification	Material	Cut-Off-Grade Au g/t	Tonnes Mt	Grade Au g/t	Ounces Au
<b>Total Indicated</b>	Oxide	0.5	0.2	3.0	<b>25,000</b>
<b>Total Indicated</b>	Primary	0.5	2.4	4.1	<b>311,000</b>
<b>Total Indicated Resources</b>		<b>0.5</b>	<b>2.6</b>	<b>4.0</b>	<b>336,000</b>
<b>Total Inferred</b>	Oxide	0.5	0.7	1.6	<b>33,000</b>
<b>Total Inferred</b>	Primary	0.5	8.6	2.3	<b>636,000</b>
<b>Total Inferred Resources</b>		<b>0.5</b>	<b>9.3</b>	<b>2.2</b>	<b>669,000</b>
<b>Total Resources</b>		<b>0.5</b>	<b>11.9</b>	<b>2.6</b>	<b>1,005,000</b>

- The Mineral Resource is reported in accordance with the JORC Code 2004 and remains unchanged
- All tonnages are rounded to the nearest 100,000t. Rounding may affect totals
- All ounces are rounded to the nearest 1,000. Rounding may affect totals
- Top-cap / Top-cut of 100 g/t gold has been used
- Average base of Indicated Mineral Resource is 170m below surface



## Appendix 5B

### Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

Name of entity

**BASSARI RESOURCES LIMITED**

ABN

84 123 939 042

Quarter ended ("current quarter")

31 March 2014

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (3 months) \$A'000
1.1 Receipts from product sales and related debtors		
1.2 Payments for (a) exploration & evaluation (b) development (c) production (d) administration	(726)	(726)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	o	o
1.5 Interest and other costs of finance paid	(4)	(4)
1.6 Income taxes paid		
1.7 Other (provide details if material)		
	(1,084)	(1,084)
<b>Net Operating Cash Flows</b>		
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a) prospects (b) equity investments (c) other fixed assets		
1.9 Proceeds from sale of: (a) prospects (b) equity investments (c) other fixed assets		
1.10 Loans to other entities		
1.11 Loans repaid by other entities		
1.12 Other (provide details if material)		
<b>Net investing cash flows</b>		
1.13 Total operating and investing cash flows (carried forward)	(1,084)	(1,084)

+ See chapter 19 for defined terms.

## Appendix 5B

### Mining exploration entity and oil and gas exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(1,084)	(1,084)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	1,195	1,195
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		
1.18	Dividends paid		
1.19	Other (provide details if material)		
	Costs of capital raising	(14)	(14)
	<b>Net financing cash flows</b>	<b>1,181</b>	<b>1,181</b>
	<b>Net increase (decrease) in cash held</b>	<b>97</b>	<b>97</b>
1.20	Cash at beginning of quarter/year to date	0	0
1.21	Exchange rate adjustments to item 1.20	2	2
1.22	<b>Cash at end of quarter</b>	<b>99</b>	<b>99</b>

### Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities

	Current quarter \$A'000	
1.23	Aggregate amount of payments to the parties included in item 1.2	114
1.24	Aggregate amount of loans to the parties included in item 1.10	
1.25	Explanation necessary for an understanding of the transactions	Salaries and payments made for consulting services to directors and director related entities

### Non-cash financing and investing activities

- 2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

A loan of \$250,000 was settled during the quarter by the issue of 31.25 million ordinary shares of Bassari at \$0.008 per share, see ASX announcement 19 March 2014.

- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

N/A

+ See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	N/A	N/A
3.2 Credit standby arrangements	N/A	N/A

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	500
4.2 Development	
4.3 Production	
4.4 Administration	250
<b>Total</b>	<b>750</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	165 (Australia)	68
5.2 Deposits at call		
5.3 Bank overdraft	(66) (Senegal)	(68)
5.4 Other (provide details)		
<b>Total: cash at end of quarter</b> (item 1.22)	<b>99</b> (See note below)	<b>0</b>

**NOTE:**

The company completed a capital raising of approximately \$1 million subsequent to the end of the March quarter (ASX announcement 29 April 2014), and is in discussion with parties to secure additional near term and project pre-development funding.

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+ See chapter 19 for defined terms.



**Appendix 5B**  
**Mining exploration entity and oil and gas exploration entity quarterly report**

Changes in interests in mining tenements and petroleum tenements

	Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements and petroleum tenements acquired or increased			

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	<b>Preference securities</b> <i>(description)</i>			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions			
7.3	<b>+Ordinary securities</b>	982,412,697	982,412,697	
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	22,033,333 25,999,999 36,414,573 95,395,423 31,250,000	22,033,333 25,999,999 36,414,573 95,395,423 31,250,000	
7.5	<b>+Convertible debt securities</b> <i>(description)</i>			

+ See chapter 19 for defined terms.

## Mining exploration entity and oil and gas exploration entity quarterly report

7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	<b>Options</b> (description and conversion factor)			<i>Exercise price</i>	<i>Expiry date</i>
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	<b>Debentures</b> (totals only)				
7.12	<b>Unsecured notes</b> (totals only)				

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does /does not\* (*delete one*) give a true and fair view of the matters disclosed.



Sign here:

(Company Secretary)

Date: 30 April 2014

Print name:

Ian Riley

+ See chapter 19 for defined terms.

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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In accordance with ASX Listing Rule 5.3.3, Bassari Resources Limited provides its list of exploration and exploitation permits with its March 2014 quarterly activities report.

Project	Country	Area (sq km)	Licence type	Granted/renewed	BSR Group % interest
Sambarabougou	Senegal	183.2	Exploration Permit	13-09-2013	70% (a)
Moura	Senegal	400.1	Exploration Permit	28-02-2012	70% (a)
Bounsankoba	Senegal	267.7	Exploration Permit	05-08-2010	70% (a)
Douta (within Sambarabougou)	Senegal	30.0	Exploitation Permit	13-08-2010	63% (b)

- (a) Bassari's wholly owned Senegal subsidiary is in joint venture with a third party which holds the permit titles.
- (b) Bassari's subsidiary which holds the interest in this permit is owned 63% by the Bassari Group.

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+ See chapter 19 for defined terms.