WESTAFRICA MINERAL MINING LTD

REPORT ON GOLD EXPLORATION POTENTIAL IN GUINEA BISSAU: JUSTIFICATION AND METHODOLOGY

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Consultant

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SUMMARY

1. Scope of the work

Westafrica Mineral Mining Ltd has contracted Dr. Madani Diallo to review the potential for gold exploration in Northern Guinea Bissau, and if that is confirmed to proceed to a field exploration with the aim of discovering a commercially viable gold deposit.

2. Completed Work

All the available data available in Guinea Bissau have been reviewed. This data include report available in Portuguese and include as well a previous report completed by Dr. Diallo in December 1990 on behalf of the United Nations Development Program (UNDP). It has to be noted that this report has been the first to point out the potential for gold exploration in Northern Guinea Bissau. Follow up work done by UNDP included limited geochemical soil and stream sampling along the main roads in Northern Guinea Bissau. Fortunately assay results from that survey were made available to the Consultant.

The Consultant has also been able to review and reinterpret regional geophysical data over Eastern Senegal, as well as geological maps of Eastern Senegal, Western Mali and Western Guinea Conakry. These documents were available in the technical library of the Consultant.

In the process of completing this study all topographic maps and reports of the Guinea Bissau Department of Mines have been digitized or scanned, geo-referenced when necessary and made available to the Government. Most of the maps and reports were unique copies and the project has contributed in safeguarding some of the geological documentation, which could have otherwise been lost to the country.

Two field visits have been achieved. The first visit was conducted in December 2009 by Mr. Richard Zongo, Senior Project Geologist to field check possible rock alterations and presence of structures. The second visit was conducted by Dr Diallo in January 2010 to field check different sampling media (soils, streams and termite moulds), and to define sampling grid and its orientation. Dr. Diallo also discussed with the in-country project personnel the possible difficulties for sampling and for completing a soil geochemical sampling in a very productive way. Dr. Diallo has used the opportunity of the field visit to share with the in-country geologist some of his 30-years knowledge in the field of exploration geochemistry for gold.

Work for Phase II has started with the implementation of an Orientation Geochemical Survey (OGS). This OGS is a critical part of the Phase II as it will allow the definition of the adequate sample size for an easy shipment to a foreign, reputable, laboratory, as there is no geochemical laboratory in the country. 46 soil and termite mould samples have been collected and are waiting Government Permission to be shipped by DHL to ALS Chemex Laboratory in Mali.

3. Main results

From the review of available data a new geological target map has been established for Northern Guinea Bissau and a target area has been outlined. A copy of the map is given below.

From the work done it appears that there are in Northern Guinea Bissau two distinct, possible rock formations with gold potential:

a. In Eastern - Northern Guinea Bissau, East of Canquelifa: possible presence of Birrimian rocks. Mapping conducted over some syntectonic granitoids (Saraya granite type) in eastern Senegal supports the fact that some epimetamorphic units previously attributed to Hercynian might be in fact Birrimian units brought to present erosionnal level;

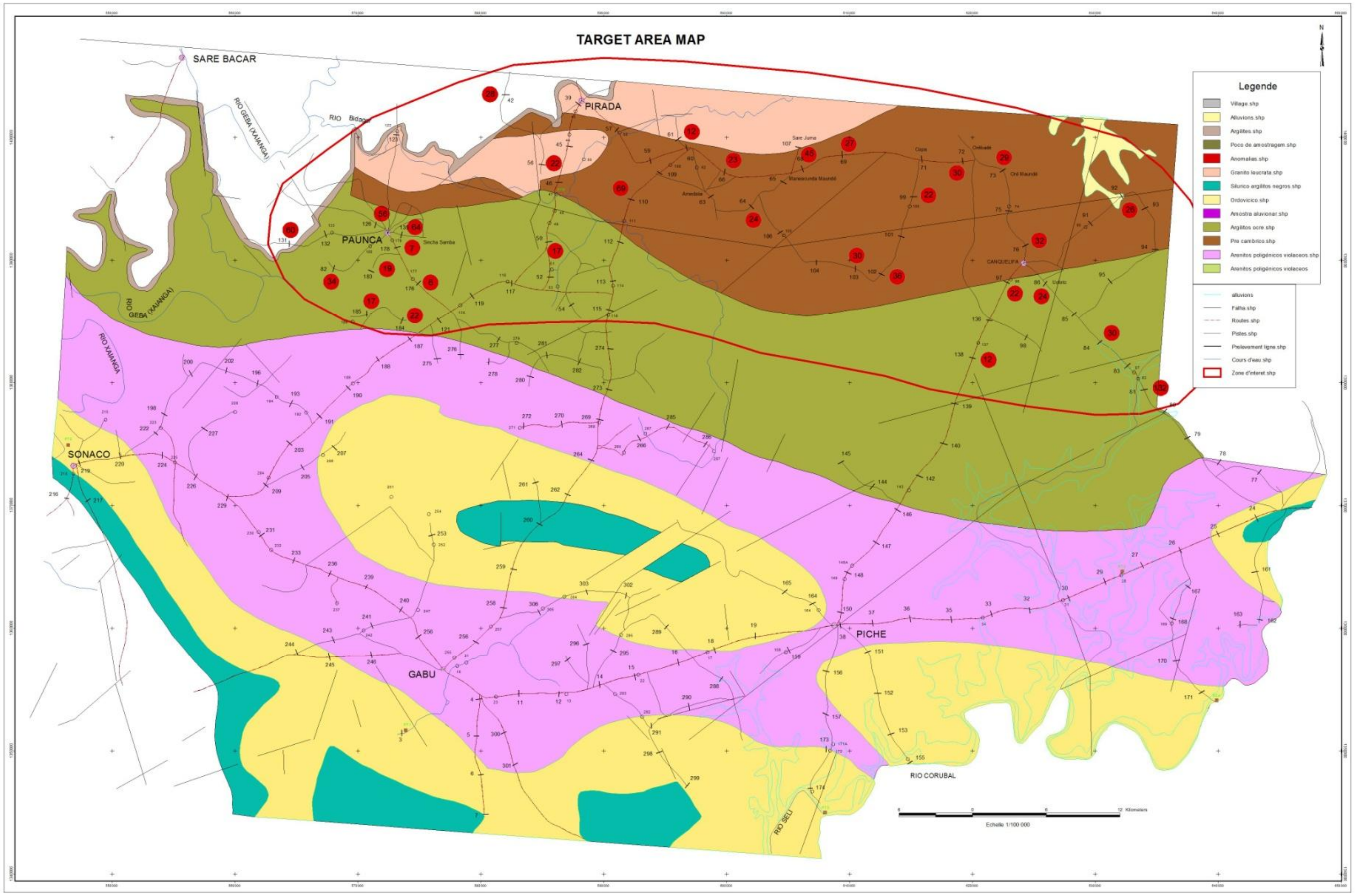
b. In Central Northern Guinea Bissau, in Canquelifa-Pauncha area, the Western Branch of the Mauritanides is stretching from Eastern Senegal. The traces of this Branch are a compelling target for gold and Copper-Gold mineralization.

4. Recommended Exploration Area and Phase II Objectives and Work Program

Based on the work completed, an area has delimited in Northern Guinea Bissau for Geochemical Exploration. Based on previous work and the geomorphology, several zones of interest will be selected within the Target Area. These zones will be subject to a geochemical soil and termite mould sampling at an approximate grid size of 1 sample per square kilometer. It is expected to collect some 2,500 samples including areas where grid will be tighter based on its outcropped regolith.

The objective of this work program is to get define geochemical gold anomalies for follow-up by tighter grid, trenching and drilling.

The proposed work program can be completed in 4 months, using technicians from Guinea Bissau under the supervision of the Project Geologist. Prior to the survey, Dr. Diallo will conduct a one week training session in Bissau for all the field staff. Dr. Diallo and/or his colleagues will supervise the field work.

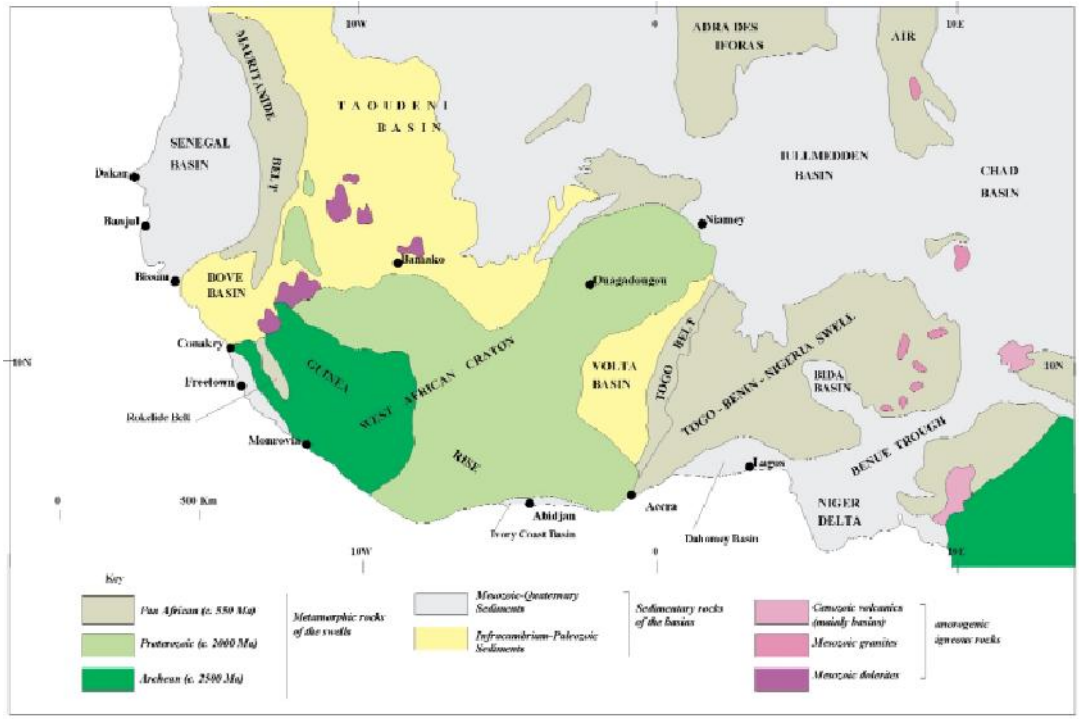

TARGET AREA MAP
N
Legende
Village.shp
Alluvions.shp
Argilites.shp
Poco de amostragem.shp
Anomalias.shp
Granito leucrata.shp
Silurico argilitos negros.shp
Ordovicico.shp
Amostra aluvionar.shp
Argilitos ocre.shp
Pre cambrico.shp
Arenitos poligénicos violaceos.shp
Arenitos poligénicos violaceos
alluvions
Falha.shp
Routes.shp
Pistes.shp
Prelevement ligne.shp
Cours d'eau.shp
Zone d'interet.shp
SARE BACAR
PIRADA
PAUNCA
SONACO
GABU
PICHE
CARQUELIFA
RIO CORUBAL
RIO GEBA (XAIANGA)
RIO XAIANGA
Echelle 1/100 000
12 Kilometers

GEOLOGY

1. General Setting

The southern part of the West African craton, stabilized at about 1600Ma (Yacé, 1984), stretches over 10 countries (Ghana, Mali, Guinea, Senegal, Burkina, Ivory Coast, Niger, Togo, Liberia and Sierra Leone). This cratonic domain, called the "Man shield" by Bessoles (1977), is bounded to the west by the Panafrican mobile zone of the "Mauritanides-Rokellides", and to the north and the east by the transgressive cover of the Taoudéni basin and of the Volta, the latter forming the foreland of the Panafrican "Dahomeyide" belt.

The "Man shield" comprises an Archean core in the southwest (Côte d'Ivoire, Liberia, Sierra Leone & Guinea), reworked by the Eburnean orogenic cycle that lasted 2400 to 1600 Ma (Yacé, 1984) and the proterozoic "Baoulé-Mossi" domain (Guinea, Mali, Côte d'Ivoire, Ghana, Burkina Faso, Niger and northern Togo) with relics of Archean basement (Bessoles, 1977).



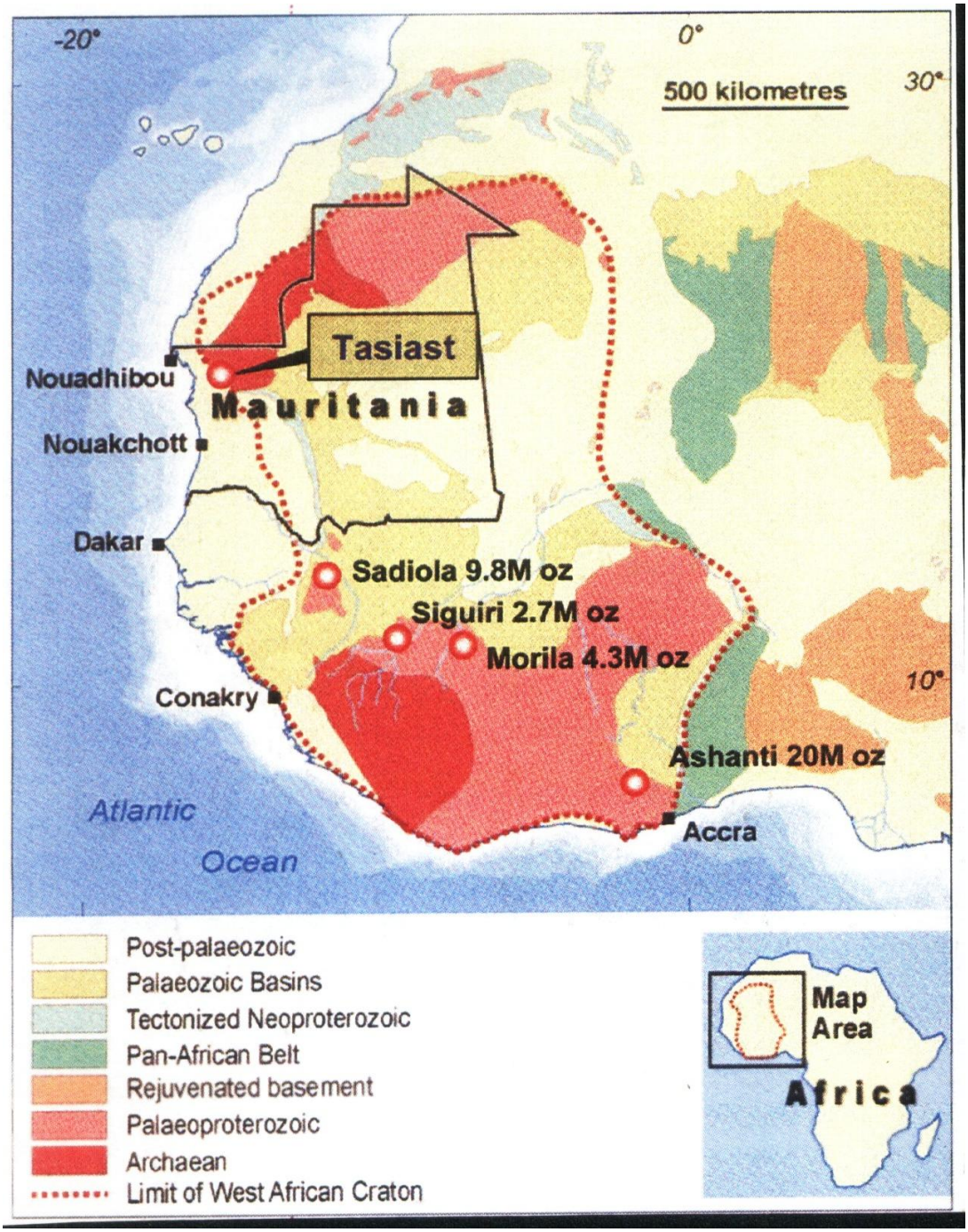
The Palaeoproterozoic formations, known as Birimian, were deposited in the "Baoulé-Mossi" domain during part of the Early Proterozoic, between 2100 and 1800 Ma (Yacé, 1984).

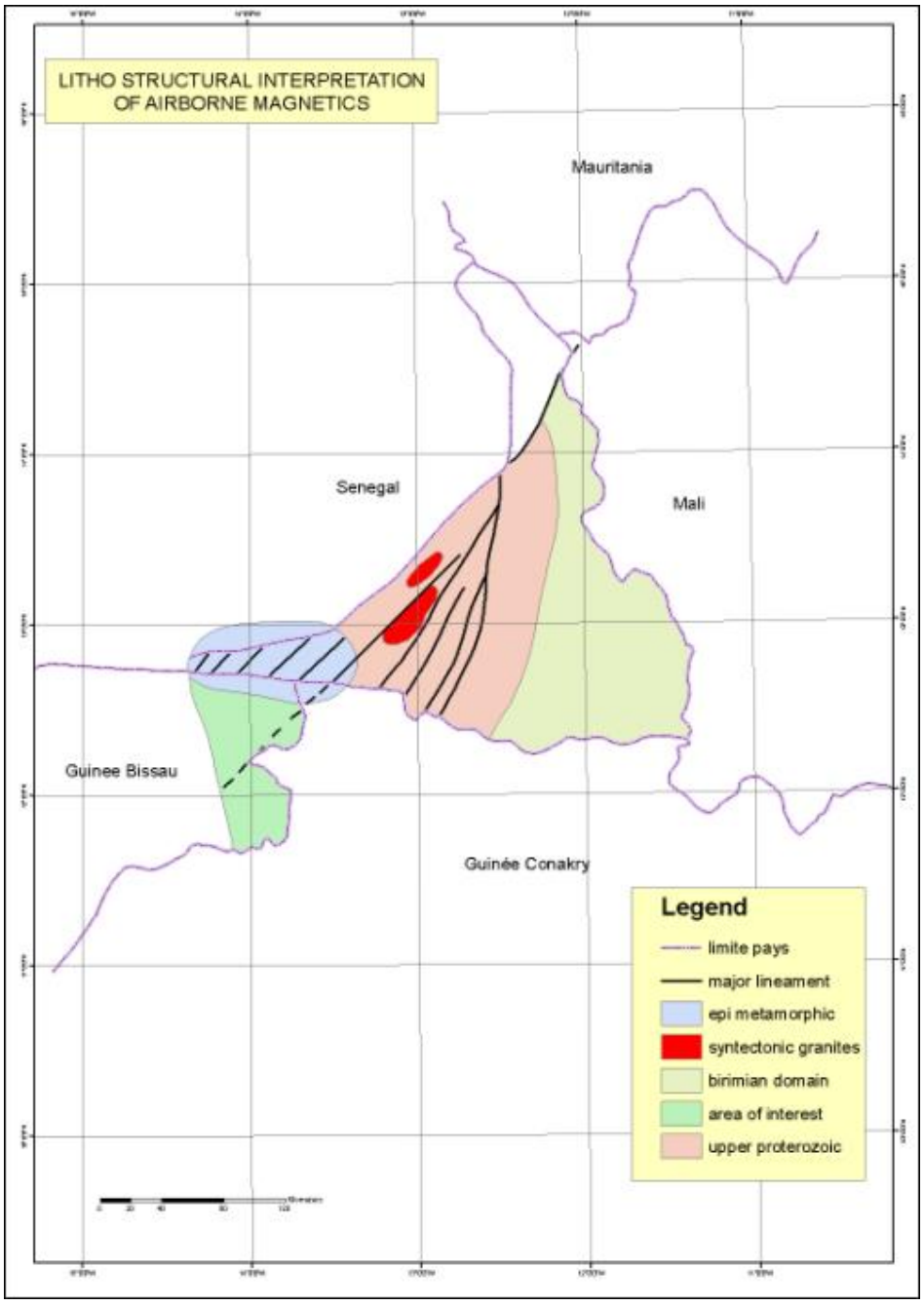
The Lower Proterozoic is unconformably overlain by a post-Eburnean sedimentary cover, whose age ranges from Late Proterozoic to Recent.

2. Possible Proterozoic formations in Northern Guinea Bissau

The major goal of this project is the identification of Precambrian basement extension into Bissau.

Early studies established fundamental maps which are still used today. Those maps clearly excluded "Guinea Bissau" from the West African Craton.



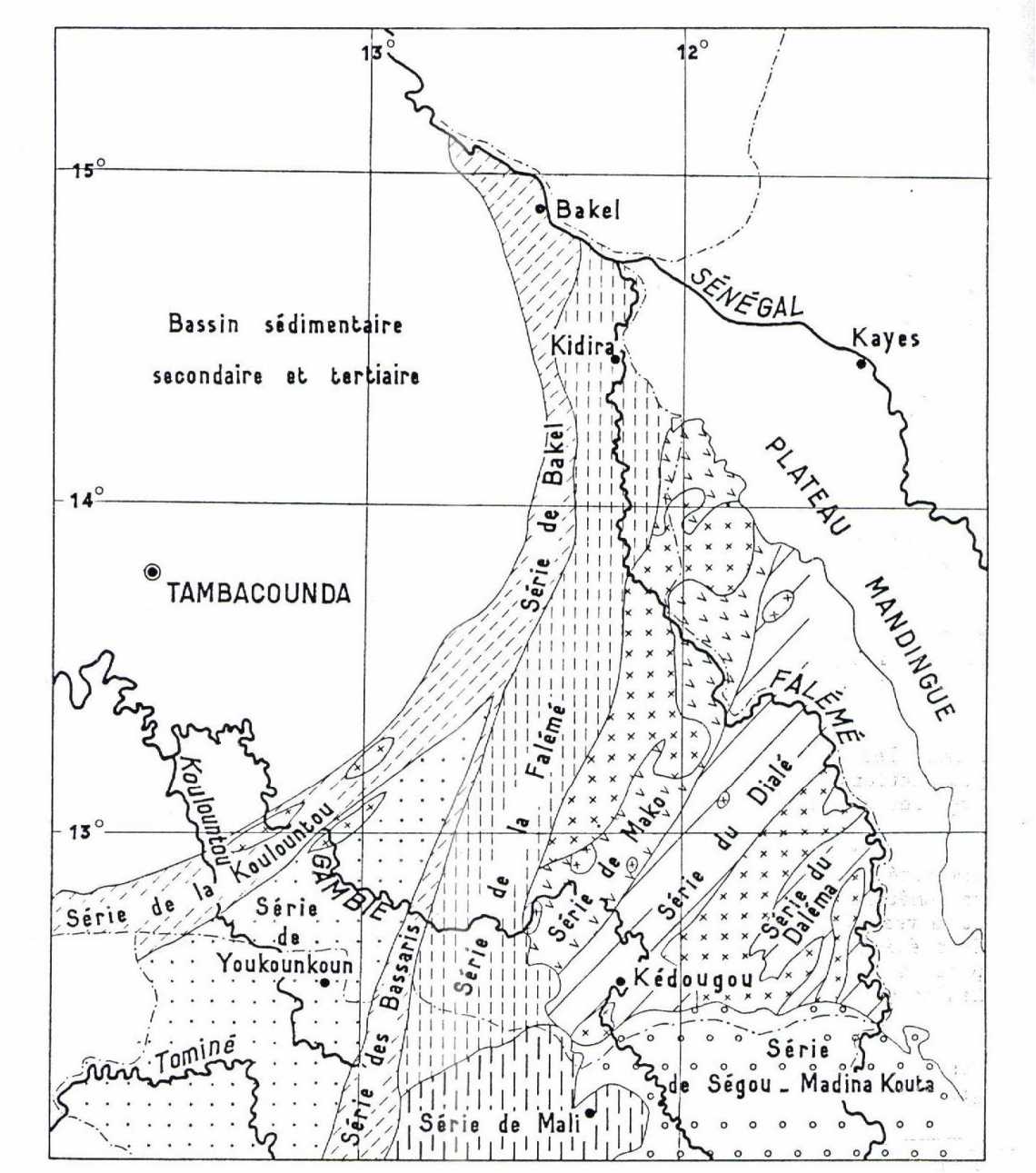

LITHO STRUCTURAL INTERPRETATION
OF AIRBORNE MAGNETICS
Mauritania
Senegal
Mali
Guinee Bissau
Guinée Conakry
Legend
limite pays
major lineament
epi metamorphic
syntectonic granites
birimian domain
area of interest
upper proterozoic

A regional accepted image provides that the Precambrian basement formations are represented at the west by the Mauritanides range bordering the eastern part of Senegal sedimentary basin and in the east by the Palaeoproterozoic volcano-sedimentary sequences of the Kédougou-Kenieba inlier.

- Nevertheless, existing data from the BRGM mapping (1963) of the "Youkounkoun" sheet that straddling "Senegal-Guinea Conakry-Bissau Guinea" borders didn't exclude the possibility of extension of the Kédougou" Birimian belt into Bissau Guinea; more precisely, BRGM has raised up the possibility that some epimetamorphic units attributed to Hercynian could represent in fact Birimian units brought to the present erosional levels. This hypothesis is supported by the description and mapping of some syntectonic granitoids (Saraya granite type) along the "Upper Proterozoic?" folded and epimetamorphic belt stretching into Bissau Guinea.

- The Mauritanides belt features a supracrustal suite of metamorphosed mafic to felsic volcanics, volcaniclastics and epiclastics rocks with a number of banded iron formation (BIF) horizons that hosting a number of significant Cu-Au targets in Mauritania. At the latitude of Senegal-Guinea & Bissau Guinea borders, the Mauritanides range is divided into 2 branches. The western branch is stretching into Bissau Guinea and its trace represents a compelling area for Mauritanides complex research.

- The Neo Proterozoic units of the West African Craton are currently the target of in depth studies to clarify the upper limit of the Proterozoic. It is commonly held that this orogenic belt has experienced a polyphase tectonothermal evolution similar to Lower Proterozoic. Dating of two distinct morphological types of hydrothermal monazite and xenotime from Guelb Moghrein Cu-Au deposit yielded *in situ* U-Pb ages of 2492 ± 9 and 1742 ± 12 Ma respectively. Such ages have not been reported previously from the region which is conspicuous by the widespread occurrence of banded iron formations, more akin to Proterozoic or Archean than to Paleozoic settings. The supracrustal rocks are thought, therefore, to represent a greenstone terrane that was mineralized by hydrothermal fluids during the late Archean and reactivated by middle Proterozoic fluid flow (Michael Meyer, Terra Nova, Volume 18, Number 5, October 2006, pp. 345-352).


13°
12°
15°
14°
13°
Bakel
SÉNÉGAL
Kayes
Kidira
Bassin sédimentaire
secondaire et tertiaire
PLATEAU
MANDINGUE
TAMBACOUNDA
Série de Bakel
FALÉMÉ
Série de la Falémé
Série de Mako
Série du Dialé
Série du Daléma
Kouluntou
Kouluntou
GAMBIE
Série de la
Série
de
Youkounkoun
Série des Bassaris
Série
Kédougou
Tominé
Série
de Ségou - Madina Kouta
Série de Mali

3. The MSGBC Basin

Guinea Bissau is part of the Northwest African Costal Basin (MSGBC: Mauritania-Senegal-Gambia-Bissau-Conakry) which extends from the Reguibat ridge at the north end of the Guinean fault. The MSGBC Basin is made up of 2 major geological domains: the Sedimentary Basin, which occupies more than 75% of the MSGBC Basin and the Precambrian Basement representing the remaining area.

The Sedimentary Basin is a typical passive margin opening westward to the Atlantic Ocean and whose eastern limit is represented by the Mauritanides chains. The MSGBC Basin is a Mesozoic Basin that has gone through a complex history at different stages of development of the Basin.

The Mauritanides-Rokellides range, extending from Mauritania to the north to Guinea Conakry to the south, forms a narrow folded belt, whose present shape is the result of a complex structural evolution from Late Proterozoic to the Devonian.

The metamorphosed sedimentary and volcano-sedimentary rocks of the range are arranged in a series of units overthrusting towards the east (Deynoux, 1983; Villeneuve, 1985; Lepage, 1986).

The Birimian formations are made up of plutono-volcanic belts, volcanogenic sediments, and sediments which have been deformed, metamorphosed and intruded by numerous granitoid plutons. Following numerous controversies, the Birimian lithostratigraphic succession now appears to be well established. This succession starts with a major sequence of tholeitic pillow basalts with intercalations of sediments, overlain by detrital and carbonate sediments, associated with calc-alkaline volcanics and plutons.

The Birimian Formations are affected by 3 tectonic events (D1, D2 & D3) and characterized by green schist level metamorphism.

The Archean domain, traditionally known as the “Kenema-Man domain” is composed of rocks that were affected by 2 major orogenic events: the Leonian (3.5 – 2.9 Ga) and the Liberian (2.9 – 2.6 Ga) cycles (Hurley and Rand, 1968; Tagini, 1971; Bessoles, 1984; Yacé, 1984; Camil, 1984).

These formations outcrop continuously in the Western part of the West African Craton, from Sierra Leone to western Côte d’Ivoire. To the east, they are bounded by the major sub-meridian Sassandra strike/slip fault (Bessoles, 1977) and to the west by the Mauritanides-Rokellides Pan-African mobile belt.

They comprise very extensive granite-gneiss complexes and greenstone belts that enclose basic and ultra mafic and iron-bearing formations.

4. Mineral Potential of the MSGBC Basin

The Archean domain contains most of the iron-ore reserves of the West African Craton, with large ferriferous quartzite/banded ironstone deposits (BIF). It also contains many deposits of Cr, Ni-Co associated to the greenstone belts and/or layered basic to ultra mafic rocks. In addition, Pb, Mo, Sn and W occurrences are noted.

Alluvial gold fields are clearly linked to the BIF complexes.

Primary gold is usually restricted to greenstone belts and ironstones.

In the Lower Proterozoic gold and base metals distribution is wider and the host rocks are more diversified than in the Archean. They are especially located in the sedimentary and volcano-sedimentary formations that were affected by polyphase deformation (Milési and Sylvain, 1984).

Upper Proterozoic minerals potential is indicated by Cu-Au-Cr-Co (IOCG) deposits and showings identified in Mauritania along the Upper Proterozoic belt of the Mauritanides (Tasiat, Akjoujt, Guelb Moghrein…).

GEOMORPHOLOGICAL AND GEOLOGICAL CONTEXT

"Canquelifa", "Pirada" and "Paunca" areas have been visited.

The regional landscape is monotonous and consists of extensive low and flat lateritic "plateaus" dissected by major rivers. The vegetation is a savannah and grassy savannah types with baobab and acacia trees.

Near, the rivers, occurs a thick sandy alluvium cover. The lateritic profiles are well preserved and generally start by a Fe rich massive duricrust followed by a ferruginous carapace and partially leached mottled zone.

Outcrops are very rare and except a porphyroid leucocratic granite in the "Rio Bidigor" valley, no outcrop has been observed. However, giant termite mounds occur largely in the permit area.

Three (3) orientation samples (2 termites mounds and 1 laterite at an interface duricrust - carapace) have been collected and will be submitted later.

In absence of outcrops to characterize the litho structural setting, focus has been made on air photographs and landsat image observation which allowed an initial regional interpretation:

- A circular structure (probably an intrusion) at the latitude of “Canquelifa” village
- A north-easterly regional corridor passing south of “Canquelifa” village and can be traced on several hundred of km into Guinea Conakry. A gold exploration permit covers the trace of this corridor in Guinea Conakry.
- A north-easterly regional corridor crossing “Pirada” village through to Senegal to the north
- A south-westerly cross cutting structure intersecting the above NE structures.

RECOMMENDATIONS

Based on the Target Area defined during Phase I, it is suggested that Westafrica Mineral Mining Ltd proceed to Phase II, a regional geochemical soil survey enhanced by termite mould sampling.

1. Grid of Regional survey

Because of the lack of outcrops and the many unknown on the geology and structural makeup of Northern Guinea Bissau, a square grid of roughly 1,000m by 1,000 m will be used. Soil sampling will be enhanced by termite mould sampling at a grid of 1000m by 500m whenever it is possible. It is anticipated that the survey will take some 4 months to complete.

2. Soil samples.

Soil samples will be collected at a general depth of at least 30 cm. During sample collection most organic material should be cleared first, before digging a shallow pit through loose silty soil. The sample should be reddish color to witness the presence of iron oxide material.

3. Termite mould samples.

It is believed that termites are bringing material from depth ranging from 2 to 10m, and therefore any mineralization at depth is brought onto the surface. Termite moulds are therefore a good medium for sampling, thus enhancing geochemical surveys. Termite moulds should be sampled at a regular grid or a twice tighter than regular grid, but no more than that.

4. Field crews.

Prior to the commencement of field work, it is proposed to organize a one week training session in Bissau. Such training session is targeted to both the supervising in-country-geologists and the technicians who will do the sample collection. The training session will focus on basic geochemical survey, the theory and the practical use of GPS and Compasses, the theory and practice of sampling and sample reduction.

5. Geochemical assays and the choice of laboratory

Although sample collection will be done through a work contract with Dr. Diallo, analytical works should be completed by an independent reputable laboratory selected by Westafrica Mineral Mining Ltd, and whose services will be paid directly by WAM. This is a standard practice and will insure both parties to simultaneously receive results, which can be audited at any time by a third party.

6. Analytical Methods

It is recommended that the following methods be used:

- Au: 50g Fire Assay/Organic solvent extraction/Atomic Absorption Spectroscopy – Graphite Furnace with results with at least 2ppb level.
- Multi-element Geochemistry: Any ICP suite or package of a minimum of 14 elements, preferably 32 elements, including at least the following: Cu, Pb, Zn, Mo,Co,As, Fe, Ag etc…

Bamako, 9 February 2010
Dr. Madani Diallo