

Damash Minerals



NOUMOUFOUGA

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REGIONAL GEOLOGY

From geological point of view, the authorization to operate Noumoufouga is located in the buttonhole of Kedougou-Kenieba consists primarily of Proterozoic formations dating from the bottom (or Birrimien) in dorsal extension and is northeast of Leo Man

The formations in the East and South are covered by upper Proterozoic sandstone. The North and West Birimian these formations are limited by chain hercínios Mauritanides (old Pan-African). These formations consist mainly of volcanic rocks, volcano-sedimentary rocks and sedimentary. This set is lithology intersected by granitic intrusions such as granite and granite-Saraya Badon Kakadian.

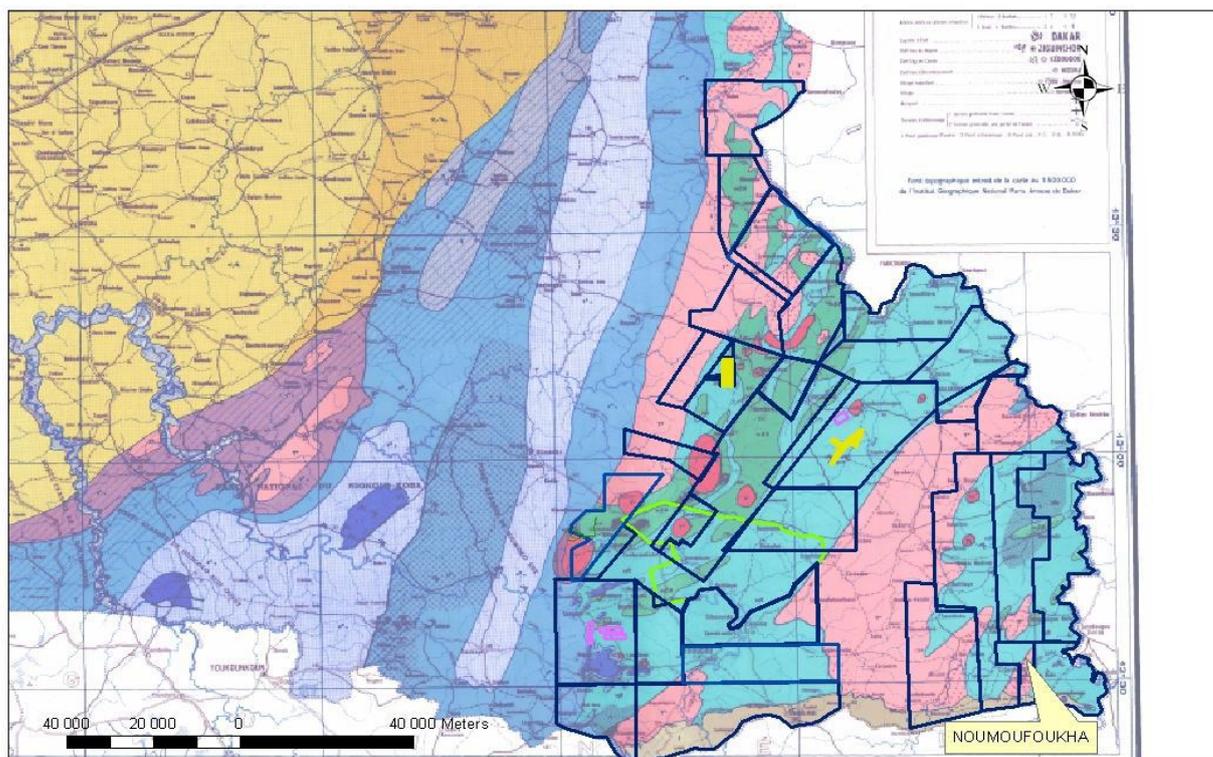
In Senegal, birrimien was divided into two groups (JP Super Bassot 1987):

- the super group of Mako
- the supergrupo of Dialé-Daléma

The Mako supergroup is located in western buttonhole Kedougou-Kenieba and is dated around 2.2 million years. Consists mainly of bimodal volcanic units of tholeiitic affinity whose lithology includes pilows of basalts, volcanic-sedimentary units consisting of formations epiblasticas, pyroclastic and fluvial sedimentary units formed by triangular.

The region of Noumoufouga

The grant Noumoufouga is accessible by paved road from Kédougou until Saraya and laterite road of good quality from Saraya.



Map of the Noumoufouga granting location

POINTS	NORTHE LONGITUDE	WEST LONGITUDE
A	11°33'00	12°35'00"
B	11°28'11"	12°35'00"
C	11°28'11"	Border Sénégal Mali
D	11°30'00"	Border Sénégal Mali
E	11°30'00"	12°32'00"
F	11°33'00	12°32'00"

Coordinates of Noumoufouga granting

The supergroup Dialé Daléma, located in eastern boutonnière Kedougou-Kenieba essentially consists from bottom to top, of siltstone interbedded with clay, tourmaline sandstone, siltstone interbedded with charred fatty acids and pyroclastic the intermediate intrusions.

The license is located in the supergroup Noumoufouga Dialé Daléma, specifically in formation Daléma. The formation is Daléma separate dialect by Saraya granite.

The formation of Daléma is in contact with the sediment detrital sometimes tourmalinifères over a width of two to three kilometers. A thick layer of sandstone, and greywacke turbidites follow eastward and disappear under the upper Proterozoic sediments.

Klockner (1989) classifies this series of turbidite sandstones and tourmalinifères in the formation of Kofi defined in Mali.

There is continuity between the unit and the unit Kofi Daléma. The Daléma unit consists of a series of turbidites mainly fine with alternations between pelites, siltstones, sandstones, marbles and agglomerates. The clusters vary in composition from felsic tuffs and breccias proximal pebble intraformational sandstone and felsic debris. These are often used by local tectonics and can be confused with tectonic breccia.

At the level of contact of the drive unit and Daléma Kofi units called "reperes" were found regularly. Estas unidades reperes são:

- one cipolino f plurimetric sizw;
- vesicular lava phénocristaux highly magnetic rare potassium feldspar in intervention plurimétrique;
- Tuffs with a level of clusters (mainly pebbles and grains).

The stratigraphy at Kofi unit comprises a grauwacke having the following variations:

- in the vicinity of cipolin it presents silites thinner and laminaires plurimetric units
- about fifty to one hundred meters grauwackes layered rare black mineral (manganese-titano);
- grauwackes fifty meters in thin clay layers;
- fifty to one hundred meters grauwackes layered rare black mineral (manganese-titano) identical to the second observation.

The series consist of magmas of various compositions: felsiques interspersed with basic items

All suffered a severe tectonic formations somewhat flexible (Daléma) as breakable (Daléma and Kofi)

There were three phases of changes associated with the different stages of deformation:

- albitization and chloritization associated with veins manetita, chlorite, pyrite, calcite, tremolite;
- tourmalinization associated with quartz veins, tourmaline, pyrite, calcite;
- h matisation albitisation and veins associated with hematite, pyrite, calcite.

Each stage seems to favor mineriliza o gold but the combination of several stages favors implementing high content

The mineralization occurs often in the form of gap or gaps hydraulic broadcasts from tectonic breccias formed in the center of the defect.

SUMMARY OF PREVIOUS EXPLORATION

The operation was performed successively by the perimeter Noumoufouga ANMERCOSA and AGEM-IAMGOLD holdings since 1994 in the BOTO source license. however, the most significant works were director in the period 2000-2009.

Work performed in 2000

In 2000, the work is done in the area of Babouya-GJ, located on the perimeter of Noumoufouga.

The zone-Babouya GJ is located in the northwest of Boto.

The geology consists of three lithological units with South:

- sediments consist of sandstones and mudstones. These mudstones show a foliation oriented N10   to N20   subvertical;
- silicified andesites formed by volcanic sometimes with chlorite and pyrite;
- diorite porphyry with plagioclase and albitized breccias with angular fragments of albitite and tourmaline, folded and faulted.

The following tasks were performed:

- 2 km of cut lines ;
- 22 dug wells;
- 145 sample taken.

Work performed in 2001

In 2001, work on the geochemistry was conducted in the area of Babouya-GJ, located on the perimeter of Noumoufouga.

Termitieres samples were collected over the grid, while in the southern were harvested pisolites.

Sampling was performed on a grid of 500 x 50m to the east and southeast, and a mesh 500x100m for the north-eastern part of the grid.

In total, 601 samples termitireres, 243 samples and 10 pisolites rock samples were collected.

The gold values obtained are higher than 5ppb and can reach 100.000ppb.

Work performed in 2002

A detailed geochemical survey was made of rocks in the northern part of the grid-Babouya GJ.

In total 16 samples of rock fragments were collected and analyzed for the search of gold and multi-elements by ICP.

The test results gave low values of gold, from 11 to 293ppb.

Work performed in 2007

In 2007, the ACT-tested values IAMGOLO abnormal ANMERCOSA that were inaccurate.

An anomaly relatively well structured on the granite Noumoufouga, located in the foothills of iron Koudekourou was selected and sampled for termite type cathedral.

Nine lines spaced 2.5 km long by 600m were taken to sample. A total of 420 samples were collected and sent one in two for analysis.

The results of the analysis revealed no trace of gold. All values were below the detection limit. The anomaly present in the analysis of ANMERCOSA is therefore unreliable.

Work performed in the área of Boto in 2009

During 2009, the AGEM made some work on the area east of the Dolphin perimeter Noumoufouga.

HOLES CAMPAIGN

Uma campanha de furos foi realizada com o objetivo de definir melhor a anomalia geoquímica. Entre outubro de 2007 e fevereiro de 2008 foram executadas 24 perfurações. Durante o ano de 2008 foram perfurados 2413m.

CORE DRILLING CAMPAIGN

A drilling campaign of 5000 and 2671 samples was carried out in harvested area Boto.

The mineralized intersections are summarized in the following table:

Depth		Golded content	Thickness
DE(m)	A(m)	Au (g /t)	(m)
36	38	0,66	2
46	48	0,99	2
90	94	6,6	4
2	4	1,82	2
16	18	0,6	2
60	66	0,72	6
80	82	0,64	2
38	40	0,91	2
92	94	1,55	2
6	8	0,73	2
68	72	10,3	4
16	22	1,02	6
40	52	0,9	12
78	82	0,72	4
12	14	0,86	2
38	40	0,73	2
88	92	1,67	4
38	42	1,24	4
84	86	0,63	2
90	98	2,49	8
24	40	2A3	16

Mineralized intersections to the polls in 2008

GEOCHEMISTRY OF TERMITES

A termite geochemical program was conducted in March 2008. The mesh is 200x50m geochemistry.

BORING DESTRUCTIVE CAMPAIGN (RC)

In 2009, a destructive drilling allowed for linear 7800M drilling for samples collected in 2986.

The mineralization encountered is very specific and often associated with the presence of coarse arsenopyrite.

CONCLUSIONS AND RECOMMENDATIONS

Despite the long presence of companies and ANMERCOSA AGEMIAMGOLD in the original Dolphin and including the new perimeter Noumoufouga, we noticed that there was not enough work, and these companies concentrated their efforts mainly on Bamdadji.

However, since 2009, IAMGOLD AGEM intensified its work on the eastern perimeter of the Dolphin, and the results of Boto1 sites, Boto2 and Boto 5 are encouraging.

It was thus demonstrated the existence of a very complex tectonics which is translated by crashes with origin in numerous discontinuities in depth mineralization and low geochemical surface.

The Noumoufouga perimeter consists of more than 50% by volcano-sedimentary formations like those found in Boto, with granite intrusion of Saraya.

The three phases of deformation affecting these formations are marked by changes that favor gold mineralization: albitization and chloritization, albitization and tourmalinisation hematitization.

The exploration program on the Noumoufouga perimeter, which will consist essentially in seveys, should be made based on a good knowledge of the structural model that leads to gold mineralization. To do this, it will be necessary to use a geologist and confirmed access to data from previous surveys as well as recent data from the airborne geophysics (aeromagnetic data).