

## **Geology and githology of gold mineralization of the Far West Bleida deposit, Bou Azzer buddy, Central Anti-Atlas, Morocco, Typology**

Amina Wafik<sup>1,\*</sup>, Koné Sidiki<sup>1</sup>, Abdeilah Benhammou<sup>2</sup>, Hassan Admou<sup>1</sup>

<sup>1</sup>*Laboratoire Dynamique de la Lithosphère et Genèse des Ressources "DLGR", Faculté des Sciences Semlalia, Université Cadi Ayyad, Marrakech, 40000, Morocco,* <sup>2</sup>*Somifer Bleida Mine, Managem Group, Twin Center Casablanca 20000, Morocco*

\*E-mail: wafik@uca.ac.ma

The Bleida far west gold deposit, located at seven kilometers in the northwest of the Bleida mine in the inlier of Bou-Azzer-El Graraa, between the north and south Rouimiate faults. The study sector is composed of two lithologically different units separated by the south Rouimiate fault :

- A south unit, named the breccia zone (B), dominated by sedimentary rocks intruded by a complex of plutonic rocks which are themselves crossed by mafic and felsic dykes.

- A north unit, named the central zone (C), to which belongs our study zone, is dominated by volcano-sedimentary rocks in which two intrusions, the granodiorite and the quartz diorite emplaced. This unit takes the gold mineralization of far-west.

All the area is affected by two types of foliations, the  $S_1$  foliation linked to the  $B_1$  phase and the  $S_2$  foliation linked to the  $B_2$  phase.

The gradient of the metamorphism grows from the south towards the north, marked by the development of metamorphic facies northward.

The gold mineralization is unloaded in the shear corridors, characterized by a strong percolation of hydrothermal fluids to which are associated many hydrothermal alteration types namely silicification, epidotization, chloritization, hematitization, carbonation, and sericitization. Four gold mineralizator stages are distinguished in a chronological order : (i) early stage ante- $S_1$ , (ii) synchronous- $S_1$  stage, (iii) synchronous- $S_2$  stage, and (iv) late- $S_1$  stage.

The compilation of the different geochemical maps on the structural lineaments clearly shows that the geochemical anomalies appear in the fracture zones and on the limits as well, overlying the alteration halo.

According to all field observations, petrographical, structural studies, and the geochemical data corroborate with orogenic gold deposit type of syn-Panafrican magmatic arc.

**Keywords :** Gold, Bleida-far west, deposit, Panafrican, Anti-Atlas, Morocco, orogenic