The polymetallic mineralization of M'Sirda is hosted by calc-alkaline andesitic rocks which are part of the North Algeria Miocene magmatic belt. These rocks and their related mineralizations were the object of several studies. The results of these studies are collected and stored in a GIS (geographic information system) database. The elaboration of the M'Sirda database consists in grouping the georeferenced entities with their attributes. The view shows the graphical aspect, whereas the attributes table gives the descriptive one; the GIS link the graphic data to their attributes. The graphic aspect of the database developed is represented by the M'Sirda interactive geological map and its descriptive aspect corresponds to its legend. The thematic maps show that the high contents of lead, zinc, silver, and gold are found essentially at the right side of the NNW–SSE faults, whereas the copper is equally distributed in both sides of these faults. This distribution allows supposing the existence of two stages of mineralization. The first stage is characterized by the deposition of lead, zinc, silver, and gold. This first mineralization was then fractured. The second phase, crosscutting the first mineralization is characterized by the deposition of copper and probably a second generation of lead, zinc, silver, and gold. A spatial distribution is also shown by the thematic maps; copper and silver are more present at Chouchkha caldera, whereas zinc is preferably at Sebabna caldera