

Occurrence and value addition of barite from Lasbela region, Balochistan, Pakistan

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Barite mineral is an important economic commodity in the global market because of its varied uses and applications. Nowadays, Pakistan is also emerging on the sky of barite producing countries and its world ranking is being improved with every expanding year. Ample consumption of barite mineral is reported in the local market as well as in the global market. The economics and consumption of barite can be enhanced by opting for proper mining and processing techniques in the perspective of end users.

The south eastern part of Lasbela District, Balochistan, Pakistan contains a number of medium to small size barite deposits. These are stratabound and stratiform types of deposits; mainly confined in the Ferozabad Group of Jurassic age. In the Lasbela area, barite is mostly mined by the open pit method. Depending upon the nature of barite deposit, mining and excavation is done by drilling, blasting or with the help of a shovel. Further processing is done based on the demand of consumer. Hand sorting, crushing and separation of low specific gravity materials like gypsum and clay using classifier are done in processing units before supply to the market. Impurities like quartz, sphalerite, galena, pyrite or host rock traces are removed by gravity separation. For the use in drilling mud and as filler in different industries mineral beneficiation is done by controlling particle size and shape as well as the removal of innocuous minerals for use as aggregates. Advance value addition of barite mineral is accomplished by monitoring its strength, concentration of water soluble chemical constituents, iron and other toxic elements.

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