Industrial Grade Rutile Concentrate: Gbangbama Deposit

Deposit Details

Location of Deposit: Bonthe District, Southern Province of Sierra Leone

Deposit Identification: Gbangbama Deposit

Geological Formation: Heavy Mineral Deposit derived from quartzo-feldspathic gneisses

of the Precambrian Kasila Group and also hosted within the

Bullum sediments.

Resource Volume Estimate: 867 Million Tonnes

Resource Quality/Grade: 95% TiO₂

Operating Mining Company: Sierra Rutile Limited

The Gbangbama Rutile Deposit in Sierra Leone's Bonthe District, operated by Sierra Rutile Limited, is a major source of industrial-grade rutile concentrate, a high-quality titanium mineral and the world's largest natural rutile deposit. Geologically derived from quartzo-feldspathic gneisses of the Precambrian Kasila group and hosted within Bullom sediments, it is estimated to contain 867 million tonnes of rutile, with 95% TiO₂ purity. This makes it highly valuable for applications like pigments, welding electrodes, and titanium metal production. The deposit contributes significantly to Sierra Leone's economy as a strategic mineral export. The region holds strong potential for further exploration and development, positioning Sierra Leone as an important global supplier of rutile.

