

# Bauxite

**Bauxite ore** is the primary source of alumina, the key component in aluminium production. It occurs as a surficial deposit, generally only a few metres thick but extending over large areas of low hills, domes and plateaux through the chemical weathering of aluminous rocks in tropical environments. Australia, China, Indonesia, Brazil, India, and Guinea are the largest producers of bauxite, accounting for around 85% of total world production

Bauxite is generally strip mined as a bulk commodity requiring the removal and transport of large tonnages of ore and overburden material. This involves careful and sensitive management of logistical, environmental and social issues from the earliest stages of exploration, right through to mining and reclamation.



## SRK ES offers:

**Experience** in the early stages of developing bauxite projects; from initial target generation to pre-feasibility level in Guinea, Vietnam, Greece, Sierra Leone and Mali. SRK ES has undertaken pitting, drilling, QAQC management and technical audits as well as the completion of resource estimations of bauxite projects in collaboration with the wider SRK Group.

**Knowledge** of the bauxite industry from grassroots exploration through to production. SRK ES understands that bauxite ore is chemically complex and specifically that only >35% alumina and <10% silica is considered good enough for processing. SRK ES can guide a project through the necessary sample collection, QAQC, chemical analysis and the interpretation of results in line with recognised international standards.

**Expertise** in designing, manning and supervising bauxite exploration programmes. SRK ES understands the importance of good community relations in such projects and is able to provide advice on the environmental, social and economic implications associated with the development of bauxite deposits. As an independent consultancy, SRK ES is able to complete technical audits, detailed fatal-flaw analysis of bauxite projects and resource evaluations.

**Innovation** in bauxite exploration by using methods such as ground penetrating radar (GPR) which is able to define the continuity of the bedrock interface between drillholes. SRK ES can implement this method to reduce the number of drillholes required across the bauxite plateaux when resource drilling.

Due to technological advances in many industrial sectors, demand for aluminium and its alloys has risen significantly, with China nearly quadrupling its consumption in the last decade. SRK ES has worked in a number of the major bauxite producing countries and emerging markets during this growth and as a result has gained valuable experience in the exploration for bauxite targets.

To find out more about our technical services or discuss your project specific needs, please contact us;



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