

CASE STUDY

GRAND CÔTE OPERATIONS SENEGAL

PROJECT PROFILE

Located approx. 120km north of Senegal's capital city, Dakar.

Mineral sands mine that produces two grades of ilmenite, zircon, rutile and leucoxene.

The process consists of a floating dredge which pumps sand containing minerals to the wet plant concentrator plant (WCP).

The mineral products are loaded onto trains and transported to Dakar port for ship loading.

PRODUCTS HANDLED

- Ilmenite, zircon, rutile and leucoxene

CAPACITY

- The designed nameplate flowrate of sand from the dredge is 7,000 dry TPH
- Designed WCP output is 126 TPH of dry HMC

PRODUCTS USED

- GE RX3i and Versamax PLCs
- Wonderware Archestra System Platform (Industrial Application Server, Historian, Intouch SCADA)
- HP Proliant DL380 G7 Servers
- D Control Modules



SCOPE OF WORKS

The new plant required construction and commissioning of:

- Wet concentrator plant including HV & LV Siemens VSD
- Wet mill - wet high-intensity magnetic separators (WHIMS) and shaker tables
- Dry mill - drying, screening, high tension rolling, electrostatic plate and magnetic separation
- Product handling - container and bulk bag loading
- Train loadout
- Deep bore and containment bores - remotely located, controlled from the WCP control room over radio communications

OUR INVOLVEMENT

- SGC Australia provided electrical, and controls support for a BEC Engineering designed electrical and control system
- SGC Australia continued to provide onsite support as the plant ramped up to production