

Client: Alufer Mining Ltd
Value: US\$ 1.7 million (Fees)
Services: Mining infrastructure design, railway engineering, mine planning, geotechnical investigation
Project Duration: Oct 2011 – March 2012

Labe Bauxite Mine and Rail Project, Guinea

Mine and Infrastructure Scoping Study

The Task

Alufer Mining commissioned a scoping level study for a greenfields bauxite mine and rail link development close to Labe in Guinea. The ore product was to be mined on mineralised plateaus in the Labe locality, before being transported via rail to an ore export terminal located close to the coastal town of Bel-Air (designed and costed as part of a separate appointment).

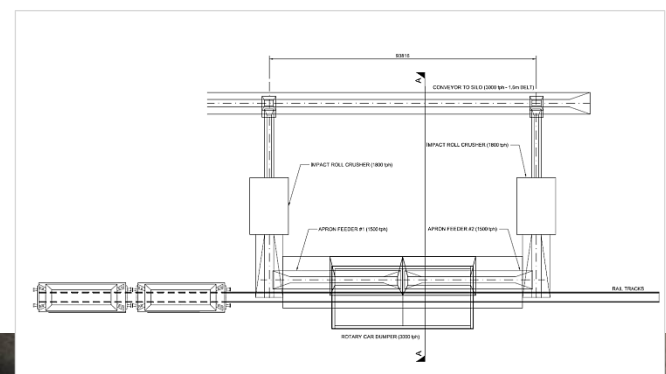
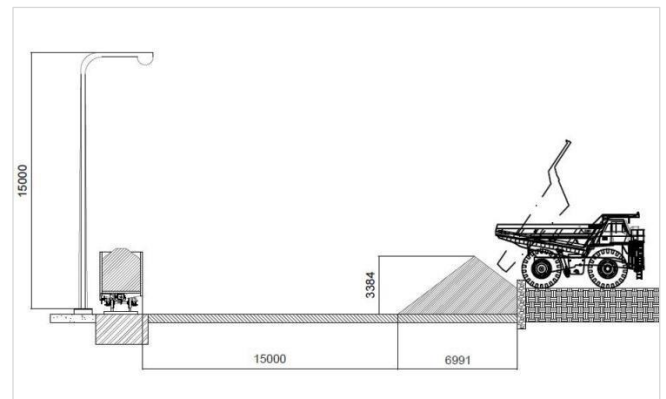
Design Services

Nurizon was involved in the integrated infrastructure and logistics design solution for the mining, processing, transportation of ore product via rail, stockpiling and export of the product. This included the crushing and processing of the ROM, product stockpiling, materials handling, conveyor systems and rail loading systems.

The railway line route traversed approximately 450km of challenging terrain from the midlands of Guinea to the coastal town of Bel-Air. Preliminary designs were completed for the railway line platforms and cuttings, bridges and rail support infrastructure. The ore export terminal at Bel-Air comprised a rail tippler, a conveyor system from the tippler to the ore stockpiles, stacker-reclaimer and over-land conveyors to the ship loading conveyor system.

Professional services rendered by Nurizon over the course of the project are summarised below.

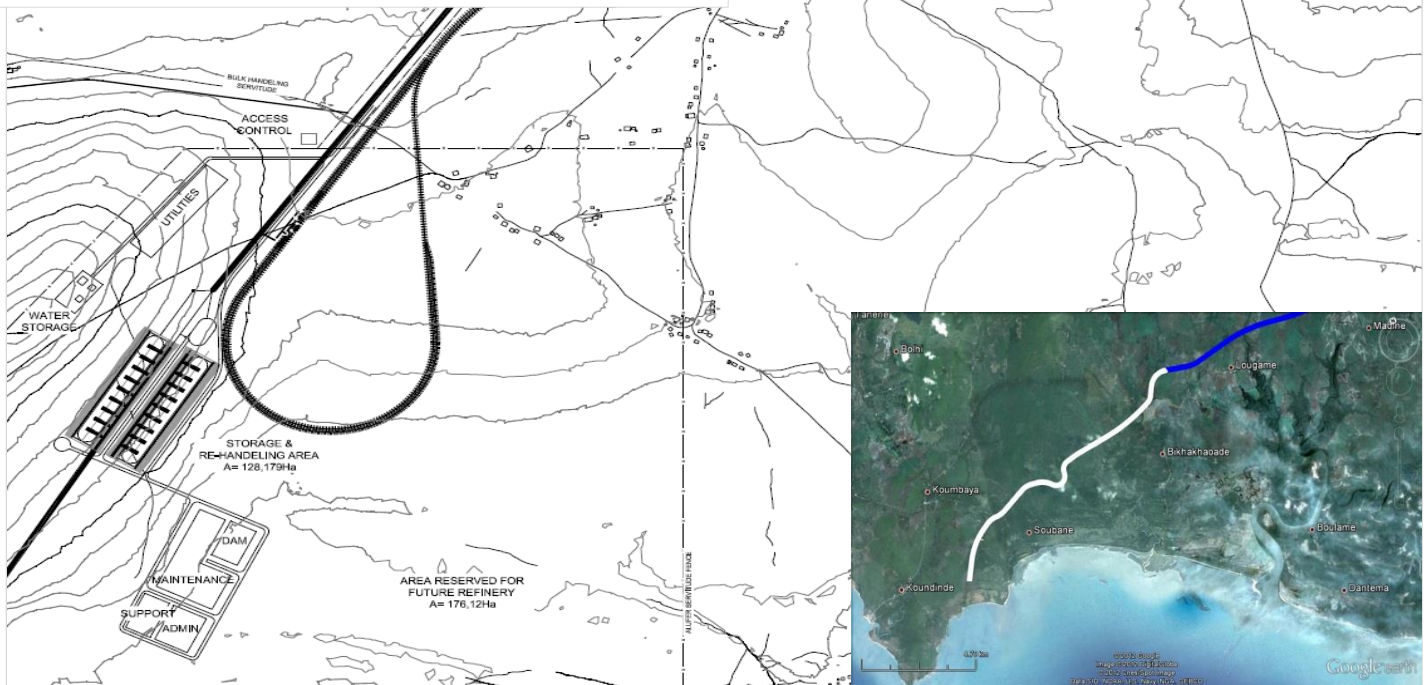
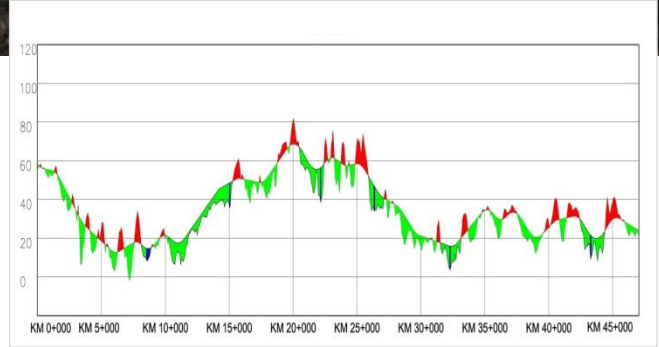
- Geotechnical investigations;
- Geometrical design, including roads, rail and earthworks platform modelling;



- Rolling stock modelling and selection;
- Bulk services and stormwater design;
- Water and wastewater reticulation design;
- Bulk fuel storage design;
- Bulk materials handling systems design;
- Structural engineering design;
- Mechanical and electrical engineering; and
- Capex and opex.

The Result

Preliminary designs for the mine infrastructure development and Labe to Bel-Air rail link were produced and costed as part of the scoping study.



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