

Project description (continues)

Stockyard

The stockyard provides for buffer stockpiles between the ore that is railed in and the ore that is loaded on ships. Various grades of ore are railed in at different times and from a number of mines and then stored in many designated and allocated stockpile areas within the yard.

As a result of the proposed increase of iron ore export the stock yard needs to be expanded by an area of about 27 hectares. To continue with the organised stacking and reclaiming from the range of designated stockpiles in accordance with the customer's demands, there is a need to expand the area for stockpiles. This expansion also caters for stockpiles allocated for the emerging miners.

Transnet proposes that the stockpile area be expanded to an area immediately adjacent and parallel to the existing stockyard. Project Engineers calculated that this would optimise the size of the required area and the operational logistics and efficiencies. Capital investment would be minimised. It also allows for smooth integration with the existing stockyard and minimising additional conveyors and transfer points. As such this expansion will involve the reclamation of a manmade pond and loss of dune area to the east of the current stockyard.



Figure 9: Layout of proposed Stock Yard Extension



Figure 10: Photographs of a typical stacker-reclaimer

Stacker-reclaimers

The proposed stacker-reclaimers, like the ones currently used at the Port of Saldanha, are dual function heavy machines that move on fixed rails along rows of wide stockpiles. They are used to organise the stockyard through stacking and reclaiming the various grades of iron ore in accordance with the specifications of the mining houses. The mining houses, in turn, base these specifications on their customer's requirements.

The use of the dual function machines improves efficiency and throughput as it provides the port operators with a low cost arrangement, minimising the number of stackers and providing a high storage to area ratio.

Iron ore stocks

The proposed operating strategy provides for about 14 different iron ore product grades railed in from the mines.

Product grades are dependent on what the mines can produce and what the customers need. Product grades typically range in iron content of between 63.5% and 66% and comprise of fine, direct reduction sinter and lumpy ores.

Service roads

Existing service roads will be extended along the proposed new stockpile areas.

