

Port Pirie Transhipment Port

Owner Engineer for 4.5mtpa Iron Ore Transhipment Port Project



Port Pirie Transhipment Port Site



Transhipment Site following Site Earthworks



Train Unloading and 200,000t Storage facility

Project

Port Pirie Transhipment Port

Location

Port Pirie, South Australia

Client

WPG Resources Ltd, Sydney NSW

Commencement Date

June 2010



Bulk Earthworks at Storage Site



Berth Location



Berth Site, car located at Shiploader Pivot Point

Description

Como Engineers were engaged by WPG Resources as the Owners Engineers Team including Project Director and Project Manager for the design, procurement and construction management of the Port Pirie Iron Ore Transhipment Port at Port Pirie, South Australia.

The Port will be designed to tranship DSO iron ore product from the Peculiar Knob deposit located near Coober Pedy, South Australia for export via Cape sized vessels moored in the Upper Spencers Gulf.

The Transhipment Port throughput will be designed for 3.4 mtpa.

The existing rail spur to the old Uranium Processing plant will be upgraded to serve the Transhipment Port requirements. Two dead end spurs each capable of taking 300 m long rakes of wagons will be constructed off the main spur beyond the Tip Pocket.

The wagons will be bottom dump type with bomb bay doors to discharge the ore and will unload directly into a bottom dump rail bin.

The rail dump bin will be sized to accept the volume of 4 bulk rail hoppers estimated to each contain 70 ton, a minimum total of 280 tons live capacity.

Trains will unload at the average rate of 3,000 tph (peak design of 3,500 tph) and will travel continuously at a speed of around 0.4 km/hr while unloading.

Product will be drawn from the bin via belt feeder and discharged onto the inclined transfer conveyor belt CV-01 at an average combined rate of 3,000 tph to convey the product from beneath the bin to the stockpile transfer point.

The transfer conveyor will elevate the product to the tripper conveyor located inside the bulk storage building.

The tripper conveyor will deliver bulk iron ore product to the stockpiles inside the building.



Panorama of Flinders Port Site



Architect View of Storage Facility



Flinders Port Jetty



B&W Shiploader

The tripper can also direct product to the by-pass system by operating a flop door built into the tripper which will direct product back onto the tripper conveyor and discharge that product onto the tail end of the by-pass conveyor to allow the product to be transported direct from the train unloading station to the barge loader located on wharf #7.

The warehouse can receive up to 200,000 t of product.

Product will be reclaimed from the warehouse stockpiles using Cat 988 front end loaders. The loaders will load into 3 fixed hoppers located above the reclaim conveyor. The hoppers are fitted with belt feeders that will deliver the product to the reclaim conveyor at a controlled rate.

The reclaim conveyor will feed onto the transfer and overland conveyors that will transport the product from the warehouse to the barge loader on wharf # 7 and over the existing road and rail infrastructure.

The Mobile Barge Shiploader will load product into the Self Unloading Barges (SUB,s) of 12,500 ton capacity.

Loaded barges will steam 25 nautical miles to the Upper Spencer Gulf OGV mooring where Cape sized vessels will be moored to receive the product.

Initially, one barge is expected to be used to transport product up to a maximum of 3.91 mtpa.

Contracts were awarded for the following;

- Design and Construction of Train Unloading, Storage facility, Reclaim and overland conveyors to Berth #7 at Flinders Port by Kerman Contractors Perth. Design work was completed and approvals received for construction. Bulk earthworks including site remediation of contamination were completed prior to placing the Project on hold following the sale of the Iron Ore deposits near Coober Pedy by WPG.
- Design and construction of the Shiploader from B&W England. This shiploader was on sold to One Steel as part of the sale of the Iron Ore deposits near Coober Pedy by WPG.
- Procurement of Rail, Sleepers and Points
- Installation of Services (Power, water, fencing)

Project placed on Care and Maintenance basis pending further need of the Port for other Projects being sought by WPG.

Project Director

Tom Van Loon



Project Manager

Grant Blakeman

