

General Information

The Moura System is located in Central Queensland between the latitudes 23°50' S and 24°54' S and longitudes 149°58' E and 151°15' E.

The system services the industrial and rural communities of the Dawson and Callide Valleys in Central Queensland with all trains being hauled by diesel electric locomotives. Product is hauled to the export facilities at R G Tanna Terminal, Auckland Point and Barney

Point or to intrastate destinations via the North Coast Line.

The port facilities at R G Tanna, Auckland Point and Barney Point are under the control of the Central Queensland Ports Authority.

Callemondah Yard, Powerhouse and R G Tanna balloon loops are electrified by a autotransformer system with the overhead line equipment operating at 25 000 volts, 50 Hertz, alternating supply (25 kV, 50 Hz, ac).

Trains destined for R G Tanna or the Powerhouse travel via the Byellee

flyover, through Callemondah Yard which is part of the Blackwater System and therefore under live overhead wires.

Trains destined for Barney Point and Auckland Point travel via the Moura Short Line which is electrified as are Barney Point and Auckland Point.

The Moura System is single line with passing loops. There are balloon loops at Boundary Hill, Callide Coalfields and Moura Mine.

Description of the Railway

The track (1067 mm gauge) on the main trunk route from Byellee Flyover to Moura Mine is generally 60 kg/m rail with concrete sleepers.

Based on the improved asset intelligence provided as a result of the Network Asset Management System, the following new totals are provided for this system. The linear data is accurate to sub-meter distances.

Asset Type	Length / Total
Total Track	315.094 km (Includes yards, sidings & passing loops)
Duplicated Track	0.000 km
Passing Loops	25.111 km (14 Passing Loops)
Sidings	2.048 km (11 Sidings)
Electrified Track	13.700 km (Includes yards, sidings & passing loops)
Access Roads	216.797 km (Including Left and Right side of track)
Level Crossings	149 Crossings
Lubricators	22 Sites
Crew Change Facilities	44 Sites
Turnouts	128 Turnouts (Mainline & Yards)



Overhead Line Equipment

The Moura Short Line (Barney Point, Parana, Callemondah), part of the Byellee Flyover and Callemondah to Powerhouse Loop and Golding Loop are electrified by an autotransformer system with the overhead line equipment operating at 25 000 volts, 50 Hertz, alternating supply (25 kV, 50 Hz, ac).

Distribution is via a contact wire suspended from a catenary wire and these two wires are held in place by supporting structures to maintain ideal pantograph/contact wire interaction.

Typically, the autotransformer system also uses a 25 kV AC feeder wire run on the back of the supporting structure which is used for voltage support throughout the electrified network.

The dual wire distribution system is automatically tensioned to maintain a constant wire tension and requires a pantograph uplift force of 80 N 3 10 N for smooth sparkless current collection. The contact wire height may vary from 4400 mm to 5850 mm above rail level.

Typically, the traction system uses both rails for return current.

Operational Systems and Train Control

The Moura system is operated by Remote Control Signalling (RCS) for the majority of the system with the sections Graham to Taragoola, Earlsfield to Koorngoo, Moura to Goolara and Koonkool south operated using Direct Traffic Control (DTC) with train movements controlled from Rockhampton.

Operations at QAL, Barney Point and Auckland Point are shunter controlled.

