Olive Downs Complex – Private Connecting Infrastructure Application: Olive Downs Rail Loop

December 2023

PEMBROKE

OLIVE DOWNS COMPLEX

STEELMAKING COAL

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Background

Olive Downs Complex

Pembroke Resources (Pembroke) owns and operates the Olive Downs Complex. The surface mine is being developed in three stages to produce up to 15 million tonnes per annum by Stage 3. Product coal in Stage 1 will be railed to Dalrymple Bay Coal Terminal (DBCT)

A map showing the location of the Olive Downs Complex and its connection to the Aurizon Network's rail network is provided in the figure below.

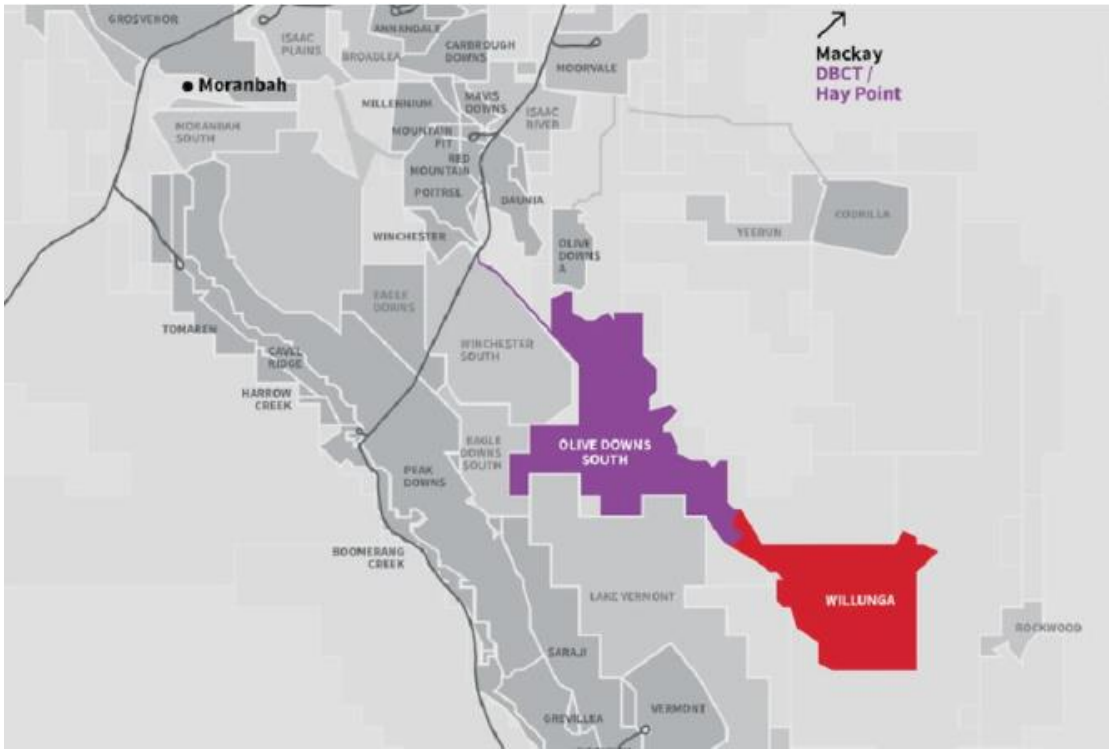

FIGURE 0.1 OLIVE DOWNS COMPLEX AND SPUR LOCATION

Regulatory Requirements

Aurizon Network is a wholly owned subsidiary of Aurizon Holdings Limited that owns and operates a 2,670-kilometre multi-user track network comprising four major coal systems and one connecting system servicing Queensland's Bowen Basin coal region: Newlands, Goonyella, Blackwater, and Moura with Goonyella Abbot Point Expansion - the connecting system link. The Olive Downs Complex will operate in the Goonyella system which transports coal to the Dalrymple Bay and Hay Point coal terminals.

Collectively this network is known as the Central Queensland Coal Network (CQCN). The services on this network are declared for third-party access under the Queensland Competition Authority Act 1997 (the QCA Act). The Queensland Competition Authority (QCA) is responsible for the regulation of third-party access to below-rail infrastructure operated by Aurizon Network Pty Ltd (Aurizon Network).

As per Clause 6.3.2 of the 2017 Access Undertaking, the QCA may approve the prudent and efficient value of Private Incremental Costs associated with Private Infrastructure ("Approved PIC"), to the extent that it is satisfied that this expenditure is for the prudent and efficient value of the assets that are used to provide the relevant Train Services over Private Infrastructure. As per Clause 6.3.2 to determine prudency and efficiency the QCA will have regard to:

- the scope of works
- the standard of works; and
- the project costs.

Objective

This paper summarises the information that has been prepared by NineSquared for Pembroke Resources to assist the QCA with its evaluation of the proposed value of the Olive Downs Complex loop that will be used as the value of the PIC in tariff calculations. Further information will be available on request.

Olive Downs Loop

In line with a required infrastructure development to support export of coal from the mine, the Olive Downs Loop and connecting infrastructure project was constructed to provide the infrastructure necessary to transport up to 15 million tonnes per annum (Mtpa) of coal from the Olive Downs Complex to Aurizon Networks Goonyella System, to DBCT.

More broadly, the Olive Downs Complex system requires a rail loop, stockpile and loading facilities for loading trains near the mine operation to transport coal to DBCT.

General Information	
Connection from Private Infrastructure to Network	Norwich Park Branch Line
Distance from Connection Point to DBCT (Unloaded)	174.27km
Distance from Connection Point to DBCT (Loaded)	174.16km

TABLE 0.1 OLIVE DOWNS COMPLEX RAIL HAUL

Asset Configuration

Taking into account the system operational requirements, the Olive Downs Complex Loop and connecting infrastructure was designed for 26.5 tal wagons and Goonyella size electric trains. The total cost of the project was $126m (subject to project Final Completion) excluding construction finance interest which was consistent with the concept study estimates.

Characteristics	Infrastructure
Total spur length	12.044km bi-directional
Total loop length	6.711km
Total single track length (excluding bad order siding)	18.755km
Bad Order Siding single track length	0.15km
Electrified	Yes
Track Construction	60 kg/m rail on concrete sleepers
Maximum Axle Load	26.5 tonnes
Control system	RCS
No. of level crossings	7
Number and characteristic of Turnouts	1 x 1in16 60kg SNX turnout 1 x 1in12 60kg RBM turnout (bad order siding) 1 x Catch Point 60kg
Number and type of culverts	15 RCBC Culverts including 2 under access roads, largest is 13/1800x1200
Number and type of bridges	1 x 3/25m spans PSC girders 1 x 2/25m spans PSC girders

TABLE 0.2 OLIVE DOWNS COMPLEX SPUR AND LOOP

Prudency and Efficiency

Pembroke Resources has prepared a dataset for the QCA and its consultant to evaluate the prudency and efficiency of the Olive Downs Complex loop. The table below summarises the key documents, however, it is noted that further documents will be available on request.

Document	Relevance
Scope and standard of works	
Olive Downs Spur and Loop Location	Context
Olive Downs Spur and Loop Schematic (for construction)	Scope
Detailed diagrams of loop construction requirements	Standard
Detailed system requirement specification (including references to relevant standards)	Standard
Feasibility study	Scope
EIS responses	Scope
EIS - impact-avoidance-and-minimisation	Scope
EIS - Commitments	Scope
Scope and Costs	
Asset cost breakdown	Cost
Rail and civil statement of work and contract price	Scope / cost
Variations Register	Scope / cost

TABLE 0.3 INFORMATION PROVIDED