



BALLERA TO WALLUMBILLA NATURAL GAS PIPELINE

ACCESS ARRANGEMENT INFORMATION

APPENDIX 1

DESCRIPTION OF THE SWQP SYSTEM

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1. INTRODUCTION

The SWQP is described in Section 2 in terms of the boundaries of the transmission pipeline system between Ballera and Wallumbilla. These boundaries are defined by the receipt points and the delivery points.

Section 3 describes the major component parts of the SWQP.

Section 4 provides the route map for the SWQP.

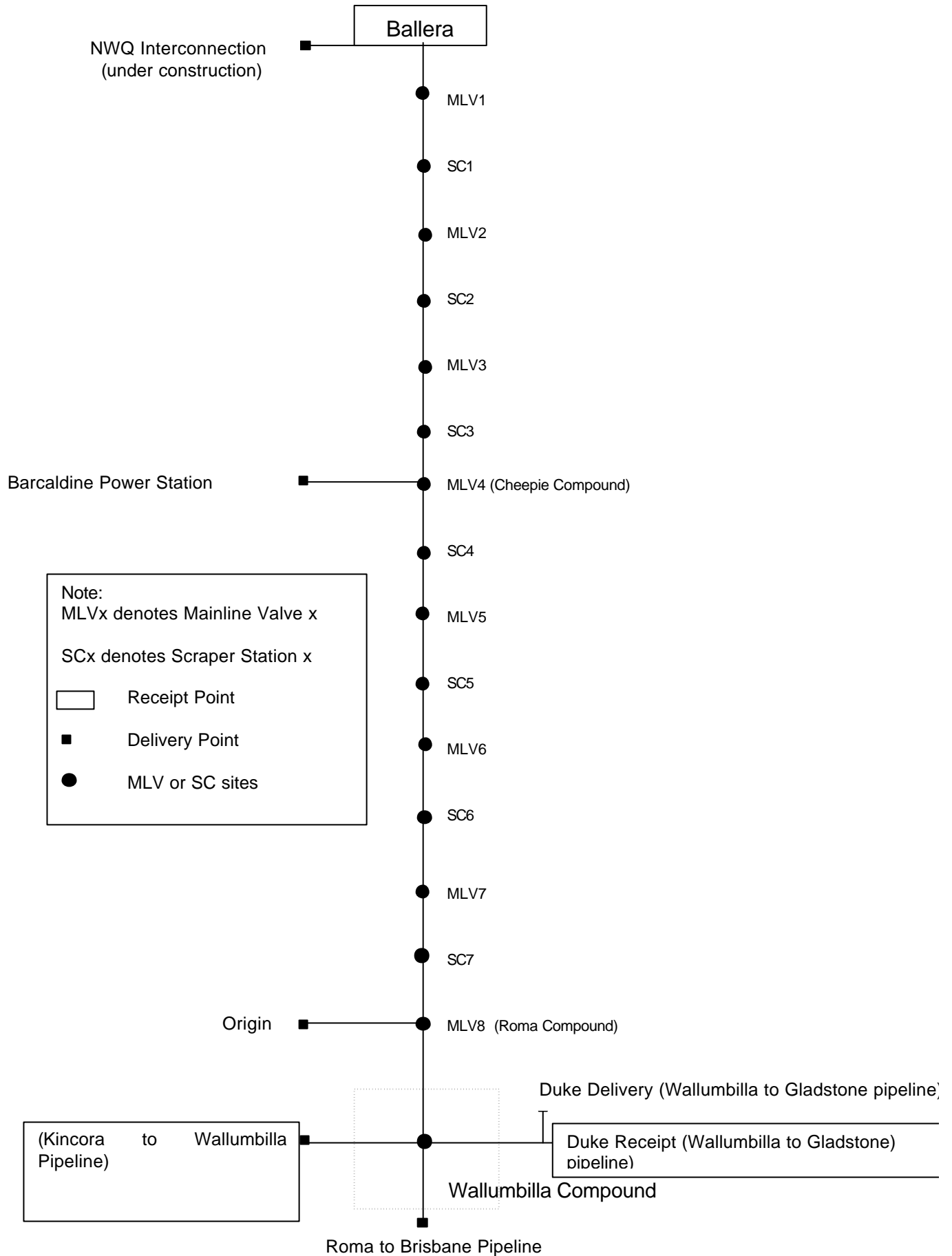
2. DESCRIPTION OF THE GAS TRANSMISSION SYSTEM: RECEIPT POINTS AND DELIVERY POINTS

The schematic on the following page describes the SWQP in terms of its receipt and delivery points.

For the purposes of this System Description:

“receipt point” means a flange or joint or other point specified in an Gas Transportation Agreement as the point at which the shipper delivers gas to Epic Energy under the Gas Transportation Agreement. Table 1 defines each of the receipt points in the gas transmission system.

“delivery point” means a flange or joint, notional delivery point or other point specified in a Gas Transportation Agreement as a point at which Epic Energy delivers gas to the shipper under the Shipper’s Gas Transportation Agreement. Table 2 defines each of the delivery points.



2.1 RECEIPT POINTS

The SWQP has two major Gas Receipt Terminals with gas receipt from three different gas producers. These terminals are located at Ballera and Wallumbilla.

At the Ballera Gas Receipt Terminal, gas is input from the South West Queensland Producers.

At the Wallumbilla Receipt Terminal, gas is input from both Oil Company of Australia (OCA) and transportation customers of Duke Energy. The input from OCA is from the Kincora plant, and the input from Duke Energy is back-haul flow from the Wallumbilla to Gladstone pipeline from various producers.

TABLE 1
GAS TRANSMISSION SYSTEM: RECEIPT POINTS

LOCATION	DISTANCE FROM BALLERA (Pipeline kilometres)	DESCRIPTION
Ballera	0.000	<ul style="list-style-type: none"> • Receipt point for South West Queensland gas
Wallumbilla	755.560	<ul style="list-style-type: none"> • Receipt point for Oil Company of Australia gas.
Wallumbilla	755.560	<ul style="list-style-type: none"> • Receipt point for back hauled gas from Duke Energy

2.2 DELIVERY POINTS

The SWQP has four major Gas Delivery Terminals. These terminals are located at:

- NWQ Interconnection at Ballera (under construction)
- Cheepie compound located at MLV4
- Roma Compound located at MLV8
- Wallumbilla Terminal located at the end terminal of the SWQP

At Ballera, gas can be delivered to the North West Queensland pipeline to Mt Isa on completion of the Interconnector.

At Cheepie Compound, gas is delivered to Energy Equity Corporation's pipeline for delivery to the Barcaldine Power Station.

At Roma Compound, gas is delivered to Origin Energy's pipeline for delivery to the Roma Power Station.

At Wallumbilla Terminal, gas is delivered to Australian Pipeline Trust's Roma to Brisbane pipeline and Duke Energy's Wallumbilla to Gladstone pipeline.

TABLE 2
GAS TRANSMISSION SYSTEM: DELIVERY POINTS

LOCATION	DISTANCE FROM BALLERA (Pipeline Kilometres)	DESCRIPTION
Ballera	0	Delivery point for North West Queensland Interconnection
MLV4 (Cheepie Compound)	335.110	Delivery point for Energy Equity Corporation to supply Barcaldine Power Station
MLV8 (Roma Compound)	710.743	Delivery point for Origin Energy to supply the Roma Power Station.
Wallumbilla Compound	755.560	Delivery point to supply Roma to Brisbane pipeline.
Wallumbilla Compound	755.560	Delivery point to supply Duke Energy's Wallumbilla to Gladstone pipeline

3. DESCRIPTION OF THE SWQP: COMPONENT PARTS

The principal component parts of the SWQP are:

- (a) the main line between Ballera and Wallumbilla;
- (b) main line valves;
- (b) scraper stations;
- (c) receipt and delivery stations;
- (d) supervisory control and data acquisition (SCADA) system and the associated communications facility.

General Description

The SWQP comprises 755.560km of high pressure gas transmission pipeline, including associated mainline valve sites and scraper stations, linking gas suppliers in the Cooper Basin to Wallumbilla.

The SWQP is 755.560km of 400mm (16 inch) diameter pipe, and is rated and operates at 14.920MPa.

The pipeline system has eight (8) remote mainline valve sites and seven (7) remote scraper stations. The scraper stations are similar to mainline valve sites but with pig launcher and receiver facilities.

At Scraper Station 7 (about 666km from Ballera), the mainline pressure is regulated to between 8.0MPa to 9.0MPa. This allows gas temperature to stabilise before delivery to the Wallumbilla terminal.

The main pipeline material is graded API 5L X65. The pipe is externally coated with a 350 micron fusion bonded epoxy powder coating. Further corrosion protection is provided by an impressed current cathodic protection system. The physical characteristics of the main line are set out in Table 3.

TABLE 3
MAIN LINE: PHYSICAL CHARACTERISTICS

MAINLINE VALVES AND SCRAPER	DISTANCE FROM BALLERA (Pipeline Kilometres)	NOMINAL OUTSIDE DIAMETER (mm)	NOMINAL WALL THICKNESS (mm)
Ballera	0	406	9.4
MLV1	46.155	406	9.4
SS1	96.811	406	9.4
MLV2	152.072	406	9.4
SS2	193.466	406	9.4
MLV3	226.852	406	9.4
SS3	288.683	406	9.4
MLV4	334.919	406	9.4
SS4	382.844	406	9.4
MLV5	420.324	406	9.4
SS5	476.686	406	9.4
MLV6	534.441	406	9.4
SS6	572.575	406	9.4
MLC7	626.783	406	9.4
SS7	666.398	406	9.4
MLV8	710.578	406	9.4
Wallumbilla	755.560	406	9.4

SCADA System

The SCADA system is an Interlution micro-computer facility located at the Wallumbilla Terminal. This SCADA system is coupled with the Valmat SCADA system linking the Moomba to Adelaide Pipeline Valmat system and controlled from the Epic Energy Head Office Control Centre in Perth.

4. PIPELINE ROUTE MAPS

Pipeline route maps are provided as Appendix 2.