

Dewhurst Gas Exploration Pilot Expansion (SSD-6038)

Modification 2 supporting information

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1. Introduction

The Dewhurst Gas Exploration Pilot Expansion is located within Petroleum Exploration Licence (PEL) 238 in the Narrabri region of NSW. Santos NSW (Eastern) Pty Ltd (Santos) is the operator of PEL 238.

The Dewhurst pilot wells 26, 27, 28 and 29 were constructed in accordance with an approval granted by the (then) NSW Office of Coal Seam Gas under Condition 2 of PEL 238 on 16 August 2013 under the *Petroleum (Onshore) Act 1991* (PO Act). The Dewhurst 26-29 pilot wells have been operational since early 2015. The Dewhurst 13-18 pilot wells were approved by the Department of Primary Industries in July 2009, but are not currently operating. See Figure 1 for an overview of PEL 238 exploration and appraisal infrastructure.

On 18 July 2014, the Planning Assessment Commission approved the Dewhurst Gas Exploration Pilot Expansion project under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (SSD-6038) (the project approval). The project approval was subject to a number of conditions that were set out in Schedules 2 – 5 of the project approval.

The approved development includes the operation of the Dewhurst 13-18 Pilot and the Dewhurst 26-29 Pilot, including the Dewhurst 13-18 Extension and Dewhurst 30 and 31 Extension and associated infrastructure. Construction of the development commenced in November 2014. The Dewhurst 30 and 31 wells have yet to be completed.

In July 2017, the project approval was modified under section 96(1A) (now section 4.55(1A)) of the EP&A Act to allow the continued operation of the Dewhurst Gas Exploration Pilot Expansion for a further three years.

2. Proposed modification

It is proposed that the project approval is modified under section 4.55(1A) of the EP&A Act to allow gas recovered from prospecting activities at the Dewhurst South 26-31 pilot wells to be beneficially used in the Wilga Park Power Station for the generation of electricity. This would minimise the requirement to flare the gas. The electricity generated at the Wilga Park Power Station is supplied to the NSW grid.

The proposed modification would not significantly alter the nature or scale of the approved development and would not significantly increase its environmental impacts.

3. Justification for modification

The proposed modification is to enable the beneficial use of the gas produced from the Dewhurst South 26-31 pilot wells in the Wilga Park Power Station.

Section 28B(1) and clause 16 of the *Petroleum (Onshore) Regulation 2016* (PO Reg) enables the beneficial use of gas delivered during prospecting operations, subject to meeting thresholds and limitations that are set out in clause 16(2) of the PO Reg. The objective of the legislation is to deliver better environmental outcomes by minimising the flaring of gas where there is a viable opportunity to use the gas beneficially.

The beneficial use of appraisal of gas from the Dewhurst 26-31 pilot wells in the power station will facilitate the ongoing appraisal of the gas resource in PEL 238 and its suitability for use. This information would assist in decision making on the Narrabri Gas Project. A State Significant Development application and associated Environmental Impact Statement for the Narrabri Gas Project is currently under assessment under the EP&A Act. Applications for four petroleum production leases over an area within PEL 238, including the areas covered by the Dewhurst 26-31 pilot wells, were lodged in 2014.

It is noted that for the purposes of section 28B (2) of the PO Act, a royalty may be payable in accordance with Part 7 of the Act in respect of the beneficial use of gas.

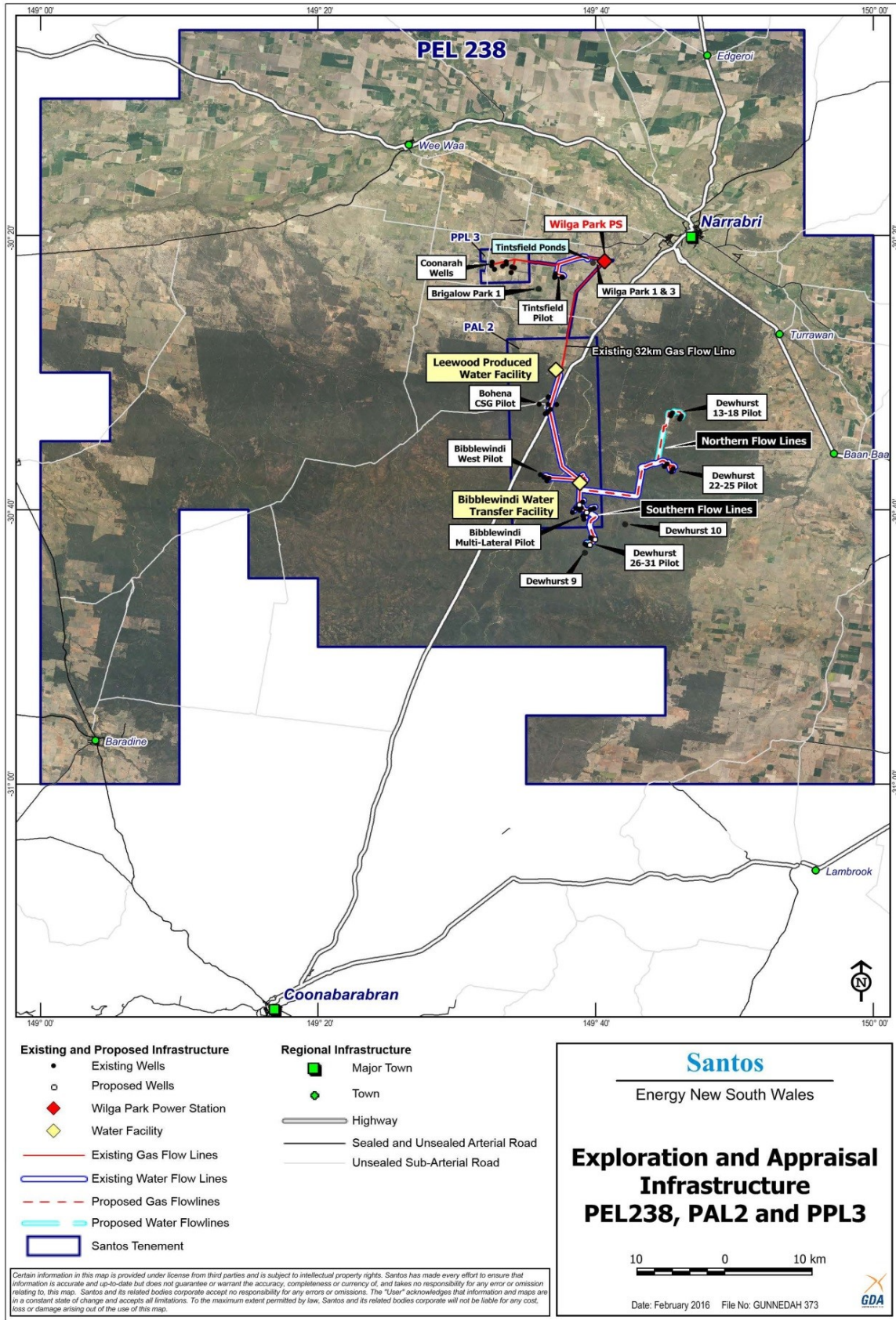


Figure 1: PEL 238 pilot wells and associated infrastructure.

4. Planning and approvals

Under section 4.55(1A) of the EP&A Act, a proponent may request the modification of a consent where the proposed modification is of minimal environmental impact. An application for modification of the Narrabri Gas Utilisation Project to allow the beneficial use of gas from wells located in PEL 238 in accordance with the requirements of the PO Reg will also be sought.

To allow the transfer of the gas from the Dewhurst South 26-31 pilot wells to the power station, the gas flow line between the Dewhurst South pilot wells and the Bibblewindi Multi-Lateral pilot would be required to be installed. The construction of the gas flow line was assessed as part of the Dewhurst Southern Water and Gas Flow Lines project which was approved in September 2013 by the (then) NSW Office of Coal Seam Gas under the PO Act. The water flow line was installed in March 2014 however the gas flow line was not installed at that time. To date, gas from the Dewhurst South pilot wells has been flared at the flare stack located at the Dewhurst 28 well pad. An application for modification of the Dewhurst Southern Water and Gas Flow Lines project approval will also be made to allow the installation and operation of the gas flow line. This will allow gas recovered from the operation of the Dewhurst 26-31 pilot wells to be transferred to the Bibblewindi Multi-Lateral pilot where it would join the broader gathering network for transfer to the Bibblewindi facility, and on to the Wilga Park Power Station for beneficial use as fuel in the power station. Minor piping modifications would be required at the Dewhurst South pilot to connect it to the gas flow line, once installed.

5. Consideration of potential impacts and mitigation

The proposed modification would be of minimal environmental impact, being simply the beneficial use of the gas in the Wilga Park Power Station instead of flaring the gas. Flaring of the gas may still be required for operational reasons, such as during maintenance periods or power station shut downs. The operations would continue to be carried out in accordance with the project approval conditions as well as the Environment Protection Licence that applies to the activities.

The proposed modification would not result in impacts over and above those previously assessed and approved. Produced water management would continue consistent with current operations. Standard operational and maintenance work associated with the ongoing operation of the pilot wells would continue to occur, consistent with current activity levels.

The beneficial use of gas from the Dewhurst South pilot wells would minimise the carbon dioxide and light emissions associated with the flaring of gas.

The beneficial use of gas in the power station would not give rise to any environmental impacts over and above those already assessed and approved.

6. Conclusion

The proposed modification is minor in nature and would result in minimal environmental impacts. The beneficial use of the gas would likely result in environmental benefits associated with minimising air and light emissions in comparison with the flaring of gas. Additionally the use of the gas to generate electricity for the NSW grid results in lower greenhouse gas emissions per unit of energy output when compared to traditional coal-fired power generation.

The project (as to be modified) would remain substantially the same as the approved project. The modification would not significantly alter the nature or scale of the project.

The proposed modifications would also allow the benefits of the project to be more fully realised, including:

- further developed understanding of the gas resource in PEL 238 and its suitability for use.
- increased reliability of electricity supply to power networks during peak demand periods
- the provision of additional social and economic benefits to the Narrabri local government area
- the continued operation of the Dewhurst pilot in accordance with the approval and the Environment Protection Licence
- a beneficial use of the State's gas resources recovered during petroleum prospecting activities that would otherwise be flared.