

ASSESSMENT REPORT

Dewhurst Gas Exploration Pilot Expansion

Extension of Time for Operation of Existing Pilot Wells (SSD 6038 Mod 1)

1. BACKGROUND

The Dewhurst Gas Exploration Pilot Expansion (the project) is located within the Narrabri local government area. The project comprises two pilot well sets (Dewhurst 13-18 and Dewhurst 26-31) located within Petroleum Exploration Lease (PEL) 238, approximately 25 kilometres (km) and 44 km south of Narrabri respectively (see Figure 1).

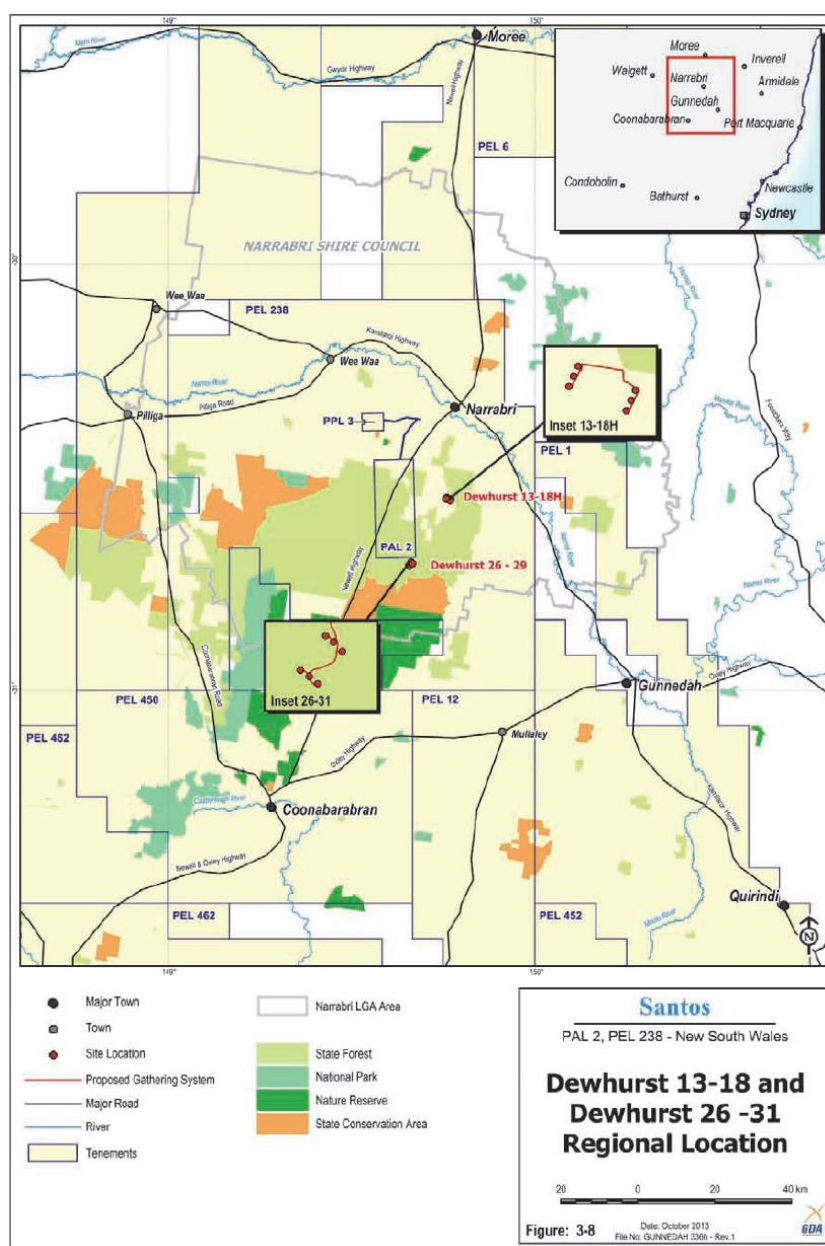


Figure 1: Approved Project

Santos NSW (Eastern) Pty Ltd (Santos) is the titleholder of PEL 238 and operates the wells. Santos also undertakes exploration and appraisal activities within a number of petroleum titles in the area, including Petroleum Assessment Lease (PAL) 2 and Petroleum Production Lease (PPL) 3.

Associated infrastructure operated by Santos within these titles includes the gas-fired Wilga Park Power Station, gas compression facilities and gas gathering lines, Leewood Produced Water Facility and Bibblewindi Water Transfer Facility (see Figure 2).

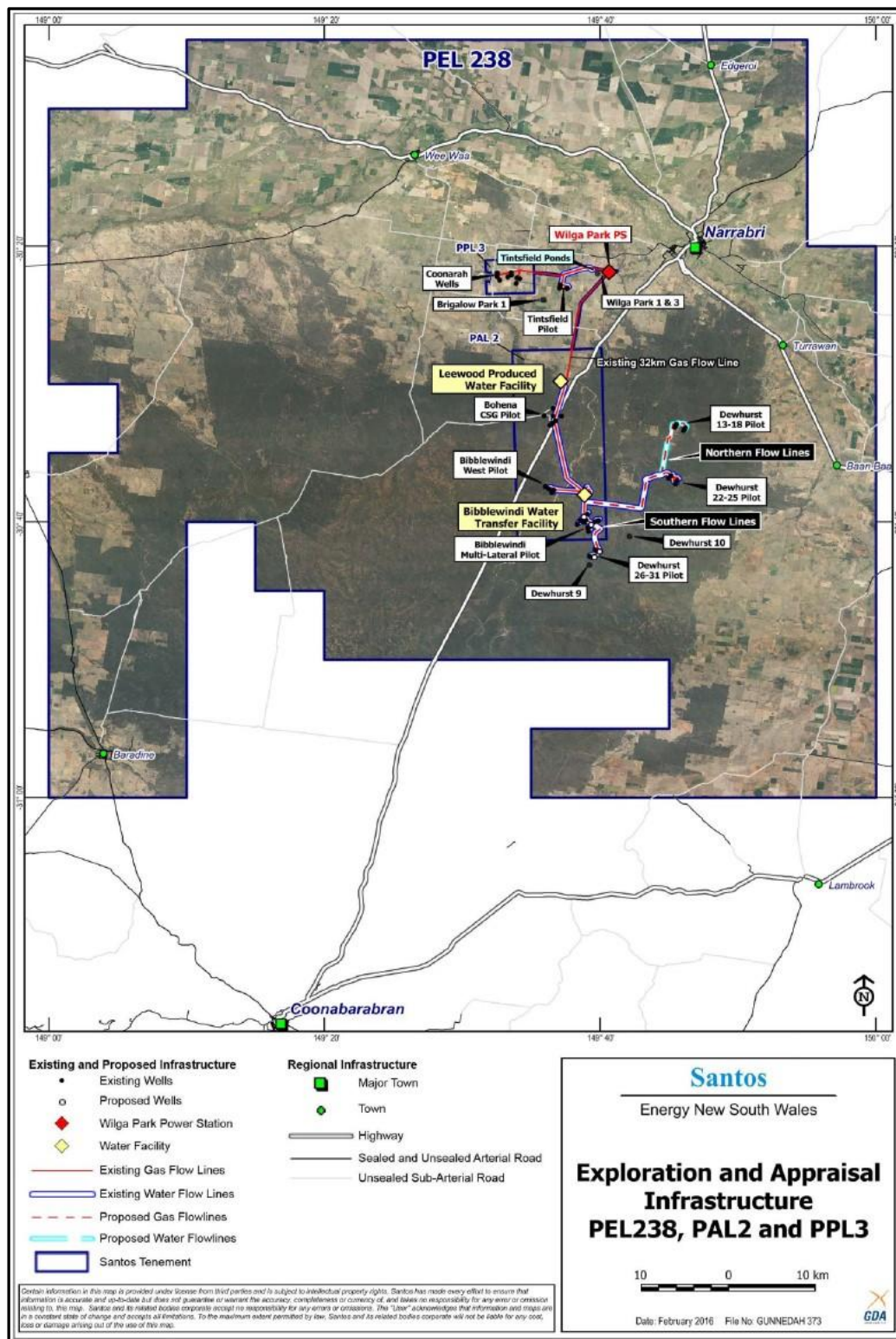


Figure 2: Gas exploration areas and infrastructure

Narrabri Gas Project

In February 2017 Santos lodged a development application and supporting Environmental Impact Statement (EIS) for the Narrabri Gas Project. That project would involve the progressive development of a coal seam gas field comprising up to 850 new gas wells on up to 425 well pads over 20 years, and the construction and operation of gas processing and water treatment facilities.

The Narrabri Gas Project would also include ongoing operation of existing and approved wells within PAL 2, PEL 238 and PPL 3.

The Narrabri Gas Project is the subject of a separate assessment process, and the Department is currently undertaking a comprehensive assessment of the merits of that project.

2. PROPOSED MODIFICATION

The Dewhurst 13-18 pilot well set was originally approved in July 2009, and the Dewhurst 26-29 pilot well set was approved in August 2013, following assessment under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and subsequent granting of activity approvals under the *Petroleum (Onshore) Act 1991*.

However, a development consent to extend and operate both well sets was granted under Part 4 of the EP&A Act in July 2014. This consent allows the Applicant to:

- convert Dewhurst wells 16, 17 and 18 from single lateral to tri-stacked lateral configuration;
- drill two additional wells in the Dewhurst 26-29 well set (Dewhurst 30 and 31);
- install additional ancillary surface infrastructure;
- operate the existing pilot wells along with the new and converted wells; and
- manage the water and gas produced during operation.

Under the development consent, operation of the wells is limited to a period of 3 years from the date of determination of the consent (18 July 2014) for wells that had already been completed at that time, and 3 years from the date of well completion for the Dewhurst 16-18 extension and Dewhurst 30 and 31 wells. The 3 year period for operation of the existing wells ends on 18 July 2017.

Although a three year operating period for the project was originally considered reasonable for future resource appraisal, Santos has advised that the wells have had significant downtime due to maintenance and repair work. This has affected pilot production performance and delayed appraisal activities. Santos has advised that further assessment of gas from the pilot wells is required to provide technical information and to continue to inform planning of the proposed Narrabri Gas Project.

Consequently, the proposed modification seeks to extend the period of time that the existing wells in the development may be operated for a further 3 years.

No other changes to existing approved activities are proposed.

The proposed modification is described in the supporting information which accompanied the application (see **Appendix A**).

3. STATUTORY CONTEXT

The development consent was originally granted under Part 4, Division 4.1 of the EP&A Act by the Planning Assessment Commission under delegation of the then Minister for Planning. Section 96 of the EP&A Act allows for a development consent to be modified by the authority that granted the original consent.

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

Consequently, the Department is satisfied that the application can be characterised as a modification to the existing consent under section 96(1A) of the EP&A Act as it would result in substantially the same development as the development for which consent was originally granted.

The Dewhurst Gas Exploration Pilot Expansion is State Significant Development under the EP&A Act, and the Minister for Planning is the consent authority for the development. However, under the Minister's delegation dated 16 February 2015, the Executive Director, Resource Assessments and Business Systems, may determine the application.

4. CONSULTATION

The Department made the modification application and accompanying information publicly available on its website from 20 June 2017 and consulted with the Environment Protection Authority (EPA), the Division of Resources and Geoscience (DRG) within the Department of Planning and Environment and Narrabri Shire Council.

While the modification was not publicly exhibited, the Department received comments from two special interest groups, Lock the Gate and People for the Plains and two members of the public (both residing within the Narrabri region).

All objected to the modification citing a lack of justification for ongoing exploration activities and raising concerns about impacts associated with extending gas extraction (see **Appendix B**).

5. ASSESSMENT

In assessing the merits of the proposal, the Department has considered the:

- supporting information provided for the proposed modification;
- existing conditions of approval;
- relevant environmental planning instruments, policies and guidelines;
- representations from the public; and
- requirements of the EP&A Act, including the objects of the Act.

In relation to concerns about whether ongoing exploration is justified, the Department notes that the three year restriction on the operation of wells in the current consent was simply a reflection of what Santos had sought approval for in the first place, and was not imposed for any policy reasons or due to concerns about the potential impacts of the exploration works.

The Department considers that there is merit in facilitating ongoing testing of the existing Dewhurst exploration wells, as this would supplement existing information and inform decision making on the Narrabri Gas Project, and potentially the detailed design of that project. In particular, it would allow Santos to better understand gas production rates and to establish well production curves for the purpose of predicting gas production rates from development wells.

Only four active pilot wells are currently operated under the development consent (Dewhurst 26-29). The expansion of three of the Dewhurst 13-18 pilot wells (16-18) from single lateral to tri-stacked lateral has not occurred and Dewhurst wells 30 and 31 have not yet been constructed. Furthermore, the Dewhurst 13-18 pilot wells are shut-in and have not been operating since the development consent was granted.

Even if all approved works are completed and the Dewhurst 13-18 wells are re-activated, the extension would apply to very few wells. Furthermore, there is no approval for beneficial use of gas from wells within PEL 238. Consequently, the modification would in no way facilitate gas production from the wells in the PEL.

The ongoing operation of the wells would not give rise to any impacts over and above those already assessed and approved, as no new infrastructure is proposed as part of the modification, and there would be no additional surface disturbance.

The biodiversity, heritage, and amenity impacts would remain unchanged, and would continue to be regulated under the existing conditions of consent.

The Department has considered the potential for increased water extraction and increased greenhouse gas emissions if the operating period for the existing wells is extended.

In relation to water extraction, the original environmental assessment predicted that over the three year life of the wells, a total of 745 megalitres (ML) of water would be extracted from Dewhurst 13-18 and Dewhurst 26-31 (including the expanded 16-18 pilot wells and the additional wells 30 and 31).

To date, 209 ML of water has been extracted from these wells, which represents around 28% of the volume of water predicted to be extracted from the target coal seams within the Gunnedah Oxley Basin water source.

In relation to greenhouse gas emissions, 131,189 tonnes of Scope 1 direct CO₂-e emissions were predicted from the operation of Dewhurst 13-18 and Dewhurst 26-31.

Santos has reported approximately 19,000 tonnes of CO₂-e Scope 1 emissions from the project to date, representing 14.5% of that predicted for the development.

Given that total gas and water extraction has been a reasonably small component of the predicted volumes for the development, the Department believes that an extension of the operating timeframe for existing wells would not lead to any increase beyond that originally predicted.

6. RECOMMENDED CONDITIONS

The Department has prepared a notice of modification and consolidated development consent for the modification (see **Appendices C and D**) to allow Santos to continue to operate the existing wells until 18 July 2019.

The Department has also made some minor amendments to reflect changes to Government agency names and relevant administrative changes.

7. CONCLUSION

The proposed modification would extend the period of time that existing pilot wells within the Dewhurst Gas Pilot Expansion Project can be operated.

The Department is satisfied that further appraisal work is justified and considers the modification to be minor in nature. It is unlikely to significantly increase the environmental impacts of the approved project as no additional infrastructure would be required and there would be no disturbance beyond the approved development footprint.

The extraction of gas and water is well below that predicted for the development at this point, because of delays in commencing construction and completion of the new wells and in appraisal of existing wells.

The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act, including the objects of the Act and the principles of ecologically sustainable development, and considers that it is approvable, subject to conditions.

8. RECOMMENDATION

It is recommended that the Executive Director, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report, noting that the Department considers that the modification is approvable, subject to conditions;
- **determines** that the applicant's request is a modification under Section 96(1A) of the EP&A Act; and
- if the Executive Director determines to modify the approval, **signs** the attached notice of modification.



Rose-Anne Hawkeswood
Senior Planner
Resource and Energy Assessments



Stephen O'Donoghue
A/ Director
Resource and Energy Assessments

APPENDIX A – SUPPORTING INFORMATION

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8509

APPENDIX B – GOVERNMENT ADVICE AND PUBLIC COMMENTS

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8509

APPENDIX C – NOTICE OF MODIFICATION

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8509

APPENDIX D – CONSOLIDATED PROJECT APPROVAL

Please see: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8509