

# Meeting Minutes

## Narrabri Gas Project (NGP) Water Technical Advisory Group (WTAG)

### Meeting #13

#### DATE / TIME

Wednesday 10 December 2025  
9.30am

#### LOCATION

Narrabri Shopfront Conference Room  
125 Maitland Street, Narrabri  
(+ Videoconference)

#### FACILITATOR

Garry West

#### MINUTE TAKER

Garry West

#### ATTENDEES

- Garry West (Independent Chair)
- Keith Phillipson (AGE)
- Michael Williams (Independent Expert) VC
- Edward Trindall (Narrabri Local Aboriginal Land Council (LALC))
- Cr Ethan Towns (Narrabri Shire Council) VC
- Randall Cox (Independent Expert)
- Ty Felmingham (Santos)
- Andrew Snars (Santos)
- Janelle Twyman (Santos)
- Adrian Lavery (Santos) VC

#### APOLOGIES

- Fabienne d-Hautefeulla (DCCEEWS NSW)
- David Cameron (Community Representative)
- Cate Barrett (DCCEEWS NSW)

#### GUESTS

- Mathias Raiber (CSIRO)

## Discussions

NO.	DISCUSSIONS
1. Welcome	The Chair welcomed all to the meeting and acknowledged Gomeroi country on which the meeting was held as well as Elders past, present and future and all Aboriginal persons present.
2. Declaration of pecuniary or other interests / Code of Conduct	Chair asked if there were any new declarations of interest. Nil
3. Confirmation of previous minutes and business arising	Minutes of the previous meeting were distributed to WTAG members and are available on the Narrabri Gas Project website.
4. Correspondence	Nil correspondence received.
5. Actions from previous meeting	Nil
6. Presentations  <b>Santos Corporate Update</b>	<p>Presentation: Santos delivered a presentation.</p> <p>Agenda items included:</p> <p><b>Santos Corporate Q3 Update</b> – Andrew Snars (Santos)</p> <p><b>Strong financial and operational performance.</b> (Reported in US \$)</p> <ul style="list-style-type: none"> <li>Free cash flow from operations of ~\$300 m, delivering year-to-date free cash flow from operations of ~\$1.4 billion.</li> <li>Production of 21.3 mmboe, bringing total year-to-date production of 64.4 mmbe.</li> <li>Sales volumes of 21.5 mmboe, with year-to-date sales one percent higher than prior year.</li> <li>Sales revenue of \$1.1 b, contributing to cumulative revenue of \$3.7 b year-to-date.</li> <li>Gearing at 22.9 per cent, excluding operating leases (28.2 per cent when included). Gearing has increased due to the BW Opal FPSO (floating production, storage and offloading vessel) reaching Ready for Start-up (RFSU) in the third quarter and coming onto the balance sheet.</li> </ul> <p><b>Operating highlights</b></p> <ul style="list-style-type: none"> <li>GLNG upstream gas production averaged 711 TJ per day (up from 705 TJ per day in the second quarter).</li> <li>GLNG output remains on track to deliver full-year production of approximately 6 Mt of LNG.</li> <li>GLNG's Roma field achieved record daily production of more than 220 TJ per day. The first well of a 32-well development program was successfully drilled at Scotia. Development activities at Fairview progressed with 33 wells drilled, completion of compression upgrades, and installation of a new gathering pipeline. Strong upstream production and development</li> </ul>

performance is supporting growing reliance on GLNG’s own gas and reducing reliance on third-party feed gas volumes.

- Moomba Carbon Capture and Storage phase 1 project (Moomba CCS) continues to perform to plan, safely and permanently storing more than 1.3 Mt (gross) of CO2e in its first year of operation. First issue of Australian Carbon Credit Units is expected imminently.
- Achieved a 2025 S&P Corporate Sustainability Assessment score for Environmental, Social and Governance of 61, placing Santos in the top 10 per cent of companies globally in the sector.

**Barossa LNG – production operations phase commences**

- The BW Opal FPSO successfully received first gas into the facility to commence production phase commissioning and operations. All six wells drilled in the Barossa gas field have intersected excellent reservoir quality with expected average potential well deliverability of ~300 mmscf per day. Testing has been completed on 5 of the 6 wells.
- Barossa LNG remains on track to ship its first LNG cargo in the fourth quarter of 2025.
- The Darwin LNG facility achieved RFSU In August 2025, following successful completion of the life extension project for Barossa LNG.
- The Northern territory Environment protection Authority renewed the Environment Protection licence for Darwin LNG, commencing 19 September 2025.

**Pikka phase 1 – advancing towards completion**

- Pikka phase 1 is more than 95 per cent complete. Twenty-two drills were drilled and completed at the end of the third quarter. The 22<sup>nd</sup> well was the longest in the project to date at nearly 27,000 feet (8,200 metres), a company record for Santos, and one of the longest wells drilled on Alaska’s North Slope.
- All 120 miles of pipeline are cleaned, gauged, hydrotested and ready for service.
- The seawater treatment plant and remaining processing modules from the Hay River Marine terminal arrived in. August 2025. Commissioning works are now underway in advance of the first oil.
- The project remains on track to meet accelerated first oil guidance in the first quarter of 2026, with ramp up to a plateau of 80,000 bopd (gross) expected in mid-2026.

**Narrabri Gas Project Update – Janelle Twyman (Santos)**

**Project Update**

- Phase 1 activity continues to progress
- Ongoing care and maintenance of existing wells
- Operating wells are delivering gas to Wilga Park Power Station
- Produced water is managed at Leewood Water Management Facility
- Field development planning is ongoing
- Groundwater monitoring is continuing.

**Management Plans**

- Santos will progress engagement on Phase 2 and 3 management plans throughout 2025/2026.
- Management plans and DPHI approval are available on the NGP website.

**Water Technical Advisory Group Update** – Ty Felmingham (Santos) and Keith Phillipson (AGE)

A CSIRO Report on the “Integration of airborne electromagnetic surveys, environmental tracers and geochemical modelling to refine the understanding of connectivity between coal seams and overlying aquifers in the Gunnedah and Surat basins, NSW” was presented by Mathias Raiber (CSIRO).

Conclusions:

Connectivity:

- The geophysical and geological assessment indicates that intrusions are the major potential connectivity pathway, but their occurrence is mostly limited to below the Pilliga Sandstone in the NGP area (thus unlikely facilitating connectivity between the Gunnedah Basin and Pilliga Sandstone).
- Hydrochemistry and tracers (e.g. highly mobile parameters such as <sup>3</sup>He/<sup>4</sup>He, <sup>4</sup>He and methane) indicate that aquitards limit vertical connectivity throughout the east, south and north-west of the proposed CSG development area.

Workflows:

- Importance of multi-disciplinary geoscientific and multi-tracer workflows to avoid misconceptions

A copy was circulated to all WTAG members.

**Groundwater Modelling and Management Plan**

Stage 1 – Review modelling objectives – complete

Stage 2 – Initial model conceptualisation – final report in preparation

Stage 3 – Data collection

Stage 4 - Date interpretation

Stage 5 – Model conceptualisation and review – WTAG consultation Q2 2026

Stage 6 Undated impact assessment modelling and interpretation – end 2026

Stage 2 – Initial model conceptualisation

Additional tasks undertaken since consultation

- Draft report and presentation June 2025
- Final report in preparation addressing:
  - Comments received during the meeting
  - Formal comments from WTAG members & WCCEEW – Water
  - Revised groundwater level data provided by Santos including:
    - Additional time series data (Dewhurst 8/14, data back to mid 2014)
    - Data for 8 additional points (2 Orallo Formation, 3 Pilliga Sandstone, 1 Purlawaugh Formation, 1 Napperby Formation, 1 Digby Formation)
- Revised Pillage / Hoskissons separation isopachs (incorporating additional public data for Narrabri Coal Mine, likely further revised during Stage 4 as part of the revision of the existing regional geological model)

	<ul style="list-style-type: none"> <li>• Additional text clarifying (initial conceptualisation report scope + scope of work for subsequent stages, additional data and findings relative to the Project GIA (CDM Smith 2016), MLU modelling not intended to replace revised impact assessment modelling in Stage 6)</li> <li>• No material changes to the primary report conclusions etc</li> </ul> <p><u>Stage 3 – Data collection</u> Dewhurst 35 fieldwork completed, laboratory testing due December 2025.</p> <ul style="list-style-type: none"> <li>• Depth of 850m into the Porcupine Formation (472m of core from the Napperby to Porcupine formations)</li> <li>• Logging data 9 (nuclear magnetic resonance, resistivity, bulk density/neutron porosity, gamma ray)</li> <li>• Packer pressure testing (results indicate low hydraulic conductivity of the overburden units, which was expected)</li> </ul> <p><u>Stage 4 - Data interpretation</u> Stratigraphic and lithofacies modelling progressing</p> <ul style="list-style-type: none"> <li>• Stratigraphic modelling – updating existing regional geo model (revised and additional stratigraphic picks and balanced sections generated by ELA (2025) + Narrabri Coal Mine interpretations, GIRERA sections generated from AEM data (Raiber et al., 2025), additional seismic interpretations from both studies)</li> <li>• Stochastic lithofacies modelling (additional validation of lithological logs from Dewhurst 35, Narrabri Coal mine logs &amp; mud logging data, use validated logs and permeability data to generate stochastic realisations of the Porcupine Formation)</li> <li>• Outcomes = revised geological surfaces and formation scale properties for subsequent impact assessment modelling (Stage 6)</li> </ul> <p><u>Stage 5 – Model conceptualisation and review</u> Further revisions to initial conceptualisation based on additional data</p> <ul style="list-style-type: none"> <li>• Dewhurst 35 core, permeability testing and logging (continuous downhole porosity and permeability profile, use to infer permeability in other bores based on standard geophysical logs)</li> <li>• Updated GISERA connectivity report and data</li> <li>• Stage 4 Stratigraphic and Lithofacies modelling results</li> <li>• Additional data collection activities (attribution of existing water supply bores, density correction of groundwater level data, extract porosity and effective porosity data from geophysical logs, incorporate additional groundwater level and geology data for Narrabri Coal Mine, and hydrochemistry data collation and review)</li> </ul> <p><u>Stage 6 – Updated impact assessment modelling and interpretation</u> Numerical model to be updated based on findings from mode; concept report</p> <ul style="list-style-type: none"> <li>• Update the existing CDM Smith Project groundwater flow model and calibration based on revised conceptualisation and additional data</li> <li>• Use revised model to re-assess Project impacts on the regional groundwater flow system and quantify take from all affected groundwater sources</li> <li>• As per Condition B39 e) and f)</li> </ul> <p><u>Key takeaways and next steps</u></p>
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- Initial model conceptualisation report is under review, incorporating updated water level data and addressing consultation comments
- Laboratory testing will be completed by end of December 2025
- Data interpretation is continuing to progress

Next Steps

- Progress Stage 4 geological modelling ahead of finalising conceptualisation (Stage 5) and updating the impact assessment model (Stage 6).

**Narrabri Lateral Pipeline** – Janelle Twyman (Santos)

**Public Exhibition**

The NSW Department of Planning, Housing and Infrastructure (DPHI) placed the NLP EIS on Public Exhibition on 20 November with submissions closing on 18 December 2025. The EIS will be assessed under the bilateral agreement with the NSW Government, addressing both Commonwealth and State matters.

The EIS is available for viewing on the DPHI Major Projects Portal. Submissions have to be made online through the portal.

Community Information

- Santos held drop-in information sessions for interested community members in Narrabri, Boggabri, Baan Baa and Gunnedah from 1-3 December. Common questions raised included construction impacts, project timing and environmental concerns
- After the exhibition period closes, DPHI will publish all submissions online and Santos will prepare a response to the issues raised and submit them to the department for consideration.

**Exploration & Other Activity**– Janelle Twyman (Santos)

- PEL 1 - Kahlua pilot activity
  - Maintaining wells online
  - A new Activity Approval was issued by the Resources Regulator on 1 December 2025. The report and approval can be found on the NGP website.

**Community Engagement and Consultation**– Janelle Twyman (Santos)

Santos continue to support the community with more than \$8.5 million spent locally within the Narrabri and Gunnedah shires this year. The Festival Of Rugby was a huge success with over 6,000 people attending the event providing a boost for the local economy through the engagement of local contractors and spending by visitors exceeding \$2 million.

Santos has continued to actively partner with 80 community groups and organisations providing financial and in-kind support. In addition, information sessions for the Projects engage with thousands of people each year.

7. Member updates	Nil
8. General Business	Nil

## Actions

NO.	ACTIONS	ACTION BY	DUE DATE
1	NIL		

## Next meeting

TBA

## Meeting closed

10:50am