# Fourth Quarter Activities Report

For period ending 31 December 2014





#### 23 January 2015

### Strong quarterly production, record sales revenue and appraisal success at Barossa

Santos today announced company records for sales revenue in both the quarter (\$1.1 billion) and the full year (\$4 billion), reflecting the successful ramp-up of production from the PNG LNG project as well as higher Cooper Basin production.

Fourth quarter production of 15.1 mmboe - 15% higher than the corresponding quarter - brought full-year production to 54.1 mmboe. This was a 6 per cent increase on the previous year and within the company's guidance range of 53-55 mmboe.

"Notwithstanding the fall in oil prices, Santos has delivered growth in full-year and quarterly production, and record sales revenue," Santos Managing Director and Chief Executive Officer David Knox said.

"These results affirm the strength of Santos' underlying business, the transformation of our operations and the positioning of the company as a major player in the Asian LNG market."

"We look forward to further growth in 2015 with the start-up of GLNG in the second half of this year."

"Commissioning of the GLNG LNG plant is well underway, with firing of the first gas turbine generator expected in the coming weeks. GLNG is more than 90% complete and it remains on time and on budget," Mr Knox said.

Santos also reported that the Barossa-3 appraisal well had intersected a gross gas bearing interval of 152 metres and provides significant upside to the resource position for the Barossa gas field, offshore Northern Territory.

The Barossa-3 result strengthens Santos' resource position in the Bonaparte Basin and means the Barossa gas field is well positioned to supply gas for either back-fill or expansion at Darwin LNG.

Corresponding period	Q4 2014	Q4 2013	Change
Production (mmboe)	15.1	13.1	+15%
Sales (mmboe)	18.0	15.6	+15%
Sales revenue (\$million)	1,090	1,065	+2%
Quarterly comparison	Q4 2014	Q3 2014	Change
Production (mmboe)	15.1	14.0	+8%
Sales (mmboe)	18.0	16.8	+7%
Sales revenue (\$million)	1,090	1,060	+3%
Full-year comparison	2014	2013	Change
Production (mmboe)	54.1	51.0	+6%
Sales (mmboe)	63.7	58.5	+9%
Sales revenue (\$million)	4,037	3,602	+12%

#### Comparative performance at a glance

Media enquiries Rob Malinauskas +61 8 8116 5918 / +61 (0) 438 862 132 robert.malinauskas@santos.com **Investor enquiries** Andrew Nairn +61 8 8116 5314 / +61 (0) 437 166 497 andrew.nairn@santos.com **Santos Limited** ABN 80 007 550 923 GPO Box 2455, Adelaide SA 5001 T: +61 8 8116 5000 / F: +61 8 8116 5131 www.santos.com



Sales gas, ethane and gas to LNG production of 66.3 petajoules for the quarter was 25% higher than the corresponding quarter, reflecting a full quarter of PNG LNG production from both trains and higher gas production from the Cooper Basin. Total sales gas, ethane and LNG sales revenues jumped 79% to \$557 million for the quarter.

Quarterly crude oil production of 2.6 million barrels was 8% higher than the previous quarter, primarily due to higher production from Mutineer-Exeter/Fletcher Finucane. The average oil price for the quarter was A\$92 per barrel, 20% lower than the previous quarter, reflecting lower global oil prices partially offset by a weaker Australian dollar. Total crude oil sales revenues of \$385 million for the quarter were 18% lower than the previous quarter reflecting lower oil prices.

### 2014 Guidance

Full-year production of 54.1 mmboe was within the company's guidance range of 53-55 mmboe.

Guidance on production costs and DD&A expense is maintained. Royalty-related taxation is anticipated to be in the range of a \$0 million to \$40 million benefit, reflecting the impact of lower oil prices, additional transferable exploration expenditure and augmentation on transferable exploration expenditure in respect of PRRT.

	20	2014		
Item	Previous guidance	Updated guidance		
Production	53-55 mmboe	54.1 mmboe		
Production costs	\$820-880 million	No change		
Depreciation, depletion & amortisation (DD&A) expense	\$18.50/boe	No change		
Royalty-related taxation expense/(benefit) (after tax)	\$60 million	(\$0 to \$40 million)		
Capital expenditure (including exploration and evaluation) <sup>1</sup>	\$3.5 billion	\$3.6 billion		

<sup>1</sup> Capital expenditure guidance excludes capitalised interest of \$236 million.

Further detail of 2014 capital expenditure, including exploration and evaluation expenditure, is reported in the table on page 8 of this report.

Guidance on 2014 financial outcomes above is preliminary and subject to finalisation of the company's accounting and audit process, which includes an impairment review being undertaken against the current lower oil price environment. As such, the actual results for the year ended 31 December 2014 may differ from the guidance given in this update.

Santos will announce its results for the year ended 31 December 2014 on 20 February 2015. The full-year report (incorporating Appendix 4E) and associated investor briefing presentation will be available on Santos' website at <u>www.santos.com</u>. A webcast briefing, including analyst/investor questions, will be available on Santos' website from 11:00 am AEDT on 20 February 2015.

## 2015 Guidance

As announced to the market on 11 December 2014, Santos expects 2015 production to be in the range of 57-64 mmboe and capital expenditure (excluding capitalised interest) to be approximately \$2 billion.

Guidance on financial items will be provided with the full-year results on 20 February 2015.

The 2015 first quarter activities report will be released on 17 April 2015.



# 1. Production (Santos share)

	Q4 2014	Q4 2013	Q3 2014	Full-year 2014 <sup>1</sup>	Full-year 2013
Sales gas and ethane (PJ)					
Cooper	17.5	16.1	16.8	63.3	61.0
Carnarvon	14.5	16.6	11.9	54.2	64.9
Indonesia	6.5	6.3	6.1	25.1	26.9
Otway	3.5	4.7	4.5	16.0	18.4
Denison/Scotia/Spring Gully	3.1	3.2	3.3	12.4	12.0
GLNG	1.7	2.3	1.7	7.9	9.6
Vietnam	0.9	0.2	0.6	3.2	1.5
Other <sup>2</sup>	0.4	-	-	0.4	1.9
Total production (PJ)	48.1	49.4	44.9	182.5	196.2
Total production (mmboe)	8.3	8.5	7.7	31.4	33.7
Sales gas to LNG (PJ)					
PNG LNG	14.6	0.1	12.5	34.0	0.1
Darwin LNG	3.6	3.7	3.0	16.5	16.7
Total production (PJ)	18.2	3.8	15.5	50.5	16.8
Total production (mmboe)	3.1	0.6	2.7	8.7	2.9
Condensate (000 barrels)	-			-	
Cooper	276.2	260.6	274.5	1,036.9	1,043.0
PNG LNG	382.9	-	347.5	915.6	-
Bayu-Undan	78.3	180.9	137.7	695.4	967.5
Carnarvon	141.4	149.2	120.6	533.4	627.5
Amadeus	10.2	7.9	11.5	41.0	28.4
Other <sup>3</sup>	4.5	6.8	6.0	19.7	25.4
Total production (000 barrels)	893.5	605.4	897.8	3,242.0	2,691.8
Total production (mmboe)	0.8	0.6	0.8	3.0	2.5
LPG (000 tonnes)					
Cooper	34.9	32.7	32.2	128.4	125.7
Bayu-Undan	4.7	9.9	7.7	39.0	55.9
Total production (000 tonnes)	39.6	42.6	39.9	167.4	181.6
Total production (mmboe)	0.3	0.4	0.4	1.4	1.6
Crude oil (000 barrels)					
Cooper	819.9	848.7	795.2	3,230.6	3,104.4
Vietnam	770.8	679.3	756.2	2,822.0	2,658.5
Fletcher Finucane/Mutineer-Exeter	454.8	894.3	257.8	1,443.6	2,167.9
Stag	271.1	263.5	323.3	1,085.5	1,124.3
Barrow/Thevenard	119.9	185.2	126.3	526.7	740.4
Amadeus	69.1	38.1	63.1	225.6	173.1
Indonesia	47.7	50.3	39.8	168.2	203.1
PNG	10.6	9.8	12.5	46.5	49.8
Queensland	9.5	13.1	12.3	46.0	49.9
Total production (000 barrels)	2,573.4	2,982.3	2,386.5	9,594.7	10,271.4
Total production (mmboe)	2.6	3.0	2.4	9.6	10.3
Total					
Production (mmboe)	15.1	13.1	14.0	54.1	51.0

<sup>1</sup> Preliminary and subject to audit.
<sup>2</sup> Amadeus, Narrabri and Bangladesh.
<sup>3</sup> Otway, Indonesia, Queensland and Bangladesh.



# 2. Sales volumes and sales revenue (Santos share)

	Q4 2014	Q4 2013	Q3 2014	Full-year 2014 <sup>1</sup>	Full-year 2013
Sales gas and ethane <sup>2</sup>					-
Sales – own product (PJ)	44.3	43.8	45.3	171.1	182.0
Sales – third party (PJ)	11.8	8.7	9.1	35.9	28.7
Total sales (PJ)	56.1	52.5	54.4	207.0	210.7
Average gas price (A\$/GJ)	5.17	4.86	4.87	4.97	4.87
Total sales revenue (\$million)	290	256	265	1,028	1,025
LNG <sup>3</sup>					
Sales volumes (000 tonnes)	294.8	66.7	247.4	766.5	300.5
Average LNG price (A\$/tonne)	904.71	828.48	879.06	859.21	853.95
Average LNG price (US\$/tonne)	773.53	769.49	814.27	778.18	821.93
Total sales revenue (\$million)	267	55	218	659	257
Condensate					
Sales – own product (000 barrels)	947.8	810.7	771.2	2,991.1	2,664.8
Sales – third party (000 barrels)	36.1	70.7	28.8	136.3	155.4
Total sales (000 barrels)	983.9	881.4	800.0	3,127.4	2,820.2
Average condensate price (A\$/bbl)	104.17	123.52	98.20	101.39	110.09
Average condensate price (US\$/bbl)	89.06	114.73	90.97	91.83	105.96
Total sales revenue (\$million)	103	108	78	317	310
LPG					
Sales – own product (000 tonnes)	51.0	42.9	30.3	163.8	176.3
Sales – third party (000 tonnes)	3.0	3.4	1.4	8.8	10.5
Total sales (000 tonnes)	54.0	46.3	31.7	172.6	186.8
Average LPG price (A\$/tonne)	836.84	1,115.95	902.15	897.20	939.56
Average LPG price (US\$/tonne)	715.50	1,036.50	835.66	812.60	904.33
Total sales revenue (\$million)	45	52	29	155	176
Crude oil					
Sales – own product (000 bbls)	2,791.3	2,753.5	2,690.7	10,363.0	9,830.3
Sales – third party (000 bbls)	1,394.6	1,917.0	1,394.1	6,083.1	5,333.1
Total sales (000 bbls)	4,185.9	4,670.5	4,084.8	16,446.1	15,163.4
Average crude oil price (A\$/bbl)	92.09	127.16	115.12	114.21	120.96
Average crude oil price (US\$/bbl)	78.74	118.11	106.63	103.44	116.43
Total sales revenue (\$million)	385	594	470	1,878	1,834
Total					
Sales – own product (mmboe)	14.6	12.1	13.8	51.3	48.0
Sales – third party (mmboe)	3.4	3.5	3.0	12.4	10.5
Total sales volume (mmboe)	18.0	15.6	16.8	63.7	58.5
Third party product purchases (\$million)	174	249	225	786	745
Sales – own product (\$million)	875	768	848	3,105	2,772
Sales – third party (\$million)	215	297	212	932	830
Total sales revenue (\$million)	1,090	1,065	1,060	4,037	3,602

<sup>1</sup> Preliminary and subject to audit.
<sup>2</sup> Domestic sales gas and ethane.
<sup>3</sup> LNG includes PNG LNG and Darwin LNG.



# 3. Activity by area

Comparisons between periods for gas, condensate and LPG production are made between the current quarter and the same quarter from the previous year, as production is heavily influenced by seasonal factors. Conversely, comparisons for crude oil are made with the immediate previous quarter, as oil production rates are not generally subject to seasonal variations. Both comparisons are available in the table on page 3.

#### Cooper Basin

#### Gas and gas liquids

Sales gas and ethane production of 17.5 petajoules (PJ) was the highest in three years and 9% above the corresponding quarter reflecting the higher level of drilling activity undertaken throughout 2014 and the resultant increase in well capacity beyond natural field decline. 20 new gas wells were brought on-line in the fourth quarter.

Condensate production was also higher reflecting the increased gas production.

The Big Lake infill drilling program continued during the quarter, with a further 9 wells successfully cased and suspended as future gas producers. Drilling has concluded at Big Lake-133, the final well of the 33-well Big Lake campaign. Non-pad development drilling also continued with Balcaminga-2, Kanowana-10, Leleptian-5 and 6, and Swan Lake-11 all successfully drilled, cased and suspended. Drilling of a four-well pad in the Nephrite field is also in progress, with the first two wells successfully drilled, cased and suspended.

An eight-well near field exploration campaign commenced in the South Australian Cooper Basin targeting condensate rich structural-stratigraphic traps within the Patchawarra Formation. The first well, Varanus South-1 located in PEL 513, was drilled to a total depth of 3,154 metres and cased and suspended as a gas discovery. Yarrowinnie South-1 located in PEL 513, was drilled to 3,142 metres total depth and also cased and suspended as a gas discovery. Aquamarine-1, located in PRL 133, reached total depth at 2,816 metres and was plugged and abandoned.

Appraisal activity continued on the Basin Centred Gas opportunity within the Gaschnitz region of South Australian Cooper Basin Nappamerri Trough with the successful drilling of Gaschnitz-3 within PPL 101. The well was drilled to a total depth of 3,937 metres and three cores obtained within tight sands, hybrid shale and deep coal unconventional targets. The final well of the three-well drilling campaign, Gaschnitz-2, also located within PPL-101, was drilling ahead at 3,251 metres at the end of the quarter.

In South West Queensland, Durham Downs-7, 8 and Durham Downs North-4 were drilled, concluding the four-well program with all wells cased and completed as future gas producers.

#### Crude oil

Crude oil production of 819,900 barrels was 3% higher than the previous quarter due to lower downtime and new wells online more than offsetting natural field decline.

Drilling was focused in South West Queensland where drilling continued using two rigs with Tickalara-25 and Tickalara-26 successfully cased and completed as future producers, and Cuisinier-17, Munro-8, Nubba-1 and Tennaperra-4 all successfully drilled, cased and suspended.

Jenners-1, a near field oil exploration well drilled to 2,525 metres depth in PEL 100 and was plugged and abandoned.



#### Carnarvon

Gas production of 14.5 PJ was 22% higher than the previous quarter due to reduced customer outages but lower than Q4 2013 due to lower customer nominations. Condensate production of 141,400 barrels reflected lower gas production.

Total oil production for the quarter of 845,800 barrels was 20% higher than the previous quarter, due to higher oil production at Mutineer-Exeter after the completion of the work-over campaign in the third quarter. Production from the Mutineer-Exeter/Fletcher Finucane wells was shut-in as planned in mid-January and the FPSO will undergo scheduled dry dock maintenance during the first quarter.

#### PNG LNG

Gross gas production for the fourth quarter was 108.6 PJ (Santos share 14.6 PJ), measured at the inlet of the LNG plant. 25 LNG cargos were shipped during the fourth quarter, with a total of 55 cargos shipped in 2014. Gross condensate production for the quarter was 2.8 mmbbls (Santos share 382,900 barrels), measured at the Kutubu entry point.

On 19 January 2015, the PNG LNG project operator announced that the project's 120-day operational test period for the LNG facilities had been successfully completed.

The Hides F1 (Hides Deep) well was spudded in early-October and successfully intersected the existing Toro reservoir. This section of the well has been logged and cased as a future production well, and drilling continues on the exploration section of the well targeting the Koi Iange formation below the Toro.

#### Bayu-Undan/Darwin LNG

Following the re-commencement of production in early-October post the planned shutdown at Bayu-Undan and Darwin LNG, gross gas production of 53.1 PJ was in line with Q4 2013. 14 LNG cargos were shipped during the quarter. Santos' net entitlement to production was 3.6 PJ of gas, 78,300 barrels of condensate and 4,700 tonnes of LPG.

The Bayu-Undan Phase 3 project is over 70% complete and on track to deliver first gas in 2015. The first well has been successfully drilled, cased and completed, and drilling of the second well is currently underway.

#### Indonesia

Santos' net entitlement to gas production of 6.5 PJ was slightly higher than the corresponding period due to production from Peluang. Combined Wortel and Oyong gross gas production for the quarter averaged 77 TJ/day, while combined gross production from Maleo and Peluang averaged 83 TJ/day. Oyong oil production for the quarter was 47,700 barrels.

#### Otway

Sales gas production of 3.5 PJ was lower than Q4 2013, due to natural field decline. Production from the Casino hub was 3.1 PJ of sales gas and 2,000 barrels of condensate. Minerva production was 0.4 PJ of sales gas and 1,200 barrels of condensate.

#### Vietnam

Oil production from the Chim Sào and Dua fields was higher than the previous quarter due to better FPSO operating efficiency and a full quarter of production from the Dua field. Two additional Chim Sào water injection wells were drilled during the quarter for reservoir pressure maintenance as part of the field development plan. Average gross oil production for the quarter from the combined fields was 28,877 barrels per day. Santos' net entitlement to oil production was up 2% to 770,800 barrels. Net entitlement gas production was 0.9 PJ.

In early January, the 100th crude oil cargo was loaded from the Chim Sào FPSO. Over 29 million barrels of oil have been shipped since the start-up of the Chim Sào field in October 2011.



#### Denison/Scotia/Spring Gully

Sales gas production of 3.1 PJ was in line with Q4 2013, with higher production from Spring Gully offset by lower production from Scotia and Denison.

Two appraisal wells were drilled in the Denison field during the quarter, with the Mahalo-7 well currently testing as part of the 5-well Mahalo pilot and core obtained from the East Lynne-1 well.

#### GLNG

Sales gas production of 1.7 PJ was lower than Q4 2013 due to lower domestic gas nominations. The Fairview field was produced to meet domestic nominations with the remaining production injected into storage. First gas from Fairview was introduced into the GLNG gas transmission pipeline in early-October.

#### Bonaparte

In mid-October 2014, the Barossa-3 appraisal well was spudded in NT/RL5, offshore Northern Territory. Barossa-3 is the second well in a three well campaign and follows the successful Barossa-2 appraisal well which intersected 88 metres of net pay across a 217 metre gross interval in mid-2014.

Barossa-3 is located approximately 300 kilometres north of Darwin, 9 kilometres from the Barossa-1ST1 discovery well and 14 kilometres from the successful Barossa-2 appraisal well.

Barossa-3 intersected a gross gas bearing interval of 152 metres. Wireline logging has confirmed 104 metres of net pay over the Jurassic-aged Elang Formation sands between 4,032 and 4,184 metres measured depth relative to the rotary table (MDRT).

Barossa-3 flow tested gas to surface at a rate of 27 mmscf/day through a 68/64 inch choke with a flowing well head pressure of 1,304 psi. The test was conducted over a 139 metre interval between 4,031 and 4,170 metres MDRT, with three zones open to flow totalling 113 metres. The well flowed gas to surface continuously for the planned 22 hour main flow period of the test. Well test flow rates were constrained by the downhole tubing size.

A condensate gas ratio in the range of 4-5 bbls/mmscf was measured at surface, with gas composition analysis indicating a carbon dioxide content of 18-19%.

The result at Barossa-3 provides significant upside to the resource position for the Barossa gas field and demonstrates the presence of high permeability sands over an extensive area of the field. The Barossa-3 result strengthens Santos' resource position in the Bonaparte Basin and means the Barossa gas field is well positioned to supply gas for either back-fill or expansion at Darwin LNG.

Drilling has commenced on the third well in the campaign, Barossa-4. The Barossa appraisal drilling campaign is being funded by joint venture partner, SK E&S, up to a US\$260 million cap. Santos holds a 25% interest in the Barossa-Caldita joint venture along with partners ConocoPhillips (37.5% and operator) and SK E&S (37.5%).

#### Narrabri

At end of 2014, the Bibblewindi East and West pilots were on line, as was the Tintsfield pilot. The Dewhurst South and North pilots were also commissioned and brought on line. The Wilga Park Power station was also on line powered by natural gas from the Bibblewindi pilots. All water from the appraisal pilots is being transferred to the newly commissioned Leewood water facility outside the Pilliga.

Work has commenced on the next phase of exploration activity at Dewhurst while work also continues on preparation of the Environmental Impact Statement for the proposed Narrabri Gas Project.



# 4. Capital expenditure

Total exploration, evaluation and development expenditure is summarised in the table below. Numbers for 2014 are preliminary and subject to audit.

	Q4 2014	Q4 2013	Q3 2014	Full-year 2014	Full-year 2013	
Capital expenditure (\$million)	Capital expenditure (\$million)					
Exploration	51	84	93	323	391	
Evaluation	112	98	61	292	227	
Development and other PP&E	668	1,031	748	2,980	3,523	
Capitalised interest	62	66	50	236	228	
Total capital expenditure	893	1,279	952	3,831	4,369	
Exploration and evaluation expensed (\$mil	llion)					
Exploration	69	97	20	162	135	
Evaluation	34	19	21	75	62	
Total current year expenditure	103	116	41	237	197	
Write-off of amounts capitalised in prior years	17	-	-	26	3	
Total expensed	120	116	41	263	200	

## 4.1 Exploration activity

Well name	Basin/area	Target	Santos %	Well status
Tanumbirini-1	McArthur – NT	Gas	50°	C&S, gas discovery
Hides F1 (Hides Deep)#	Papuan – PNG	Gas	24	Drilling
Ehsan-1 <sup>#</sup>	Offshore Malaysia	Gas	25*	Drilling
Telus-1 <sup>#</sup>	Offshore Malaysia	Oil	25*	P&A

<sup>#</sup> Not operated by Santos.

°Santos is funding 100% of the well cost as part of farm-in obligations.

\* Santos is funding 33.33% of the well cost as part of farm-in obligations.

#### **Northern Territory**

The Tanumbirini-1 exploration well was drilled in EP 161 to a total depth of 3,945 metres. Multiple thick intervals of organic-rich rock were intersected at the primary objective Mid-Velkerrie level, accompanied by significant mud gas shows. Elevated gas readings were encountered over a total gross interval in excess of 500 metres. A 90 metre core was taken and extensive wireline evaluation conducted. The well is being cased and suspended for later re-entry.

#### **Papua New Guinea**

The Hides F1 (Hides Deep) well was spudded in early-October and successfully intersected the existing Toro reservoir. This section of the well has been logged and cased as a future production well, and drilling continues on the exploration section of the well targeting the Koi Iange formation below the Toro.



In the PNG foreland, analysis of the successful NW Koko-1 and Manta-1 wells in PPL 261 and PPL 426 is continuing. Seismic acquisition in the frontal foldbelt area is in progress in PPL 269.

#### Malaysia

A two-well exploration program commenced during the quarter in Deepwater Block S, offshore Malaysia. The first well, Telus-1, was drilled during the fourth quarter. The well was plugged and abandoned at the end of the quarter. The second well, Ehsan-1, was spudded on 31 December 2014 and is currently drilling ahead.

#### 4.2 Seismic activity

Permit	Basin/area	Survey	Туре	km/km <sup>2</sup>	Status
ATP 259L PL 80, 112, 155, 156	Cooper – QLD	Coolah 3D	Onshore 3D	92.1 km <sup>2</sup>	36% complete
ATP 636P	Cooper – QLD	Gumbo 3D	Onshore 3D	83.4 km <sup>2</sup>	15% complete
EPP 43	Ceduna – SA	Springboard MC3D	Offshore 3D (Multiclient)	2,704 km <sup>2</sup>	34% complete
SS-11	Bay of Bengal — Bangladesh	St Martins 2D	Offshore 2D	275.1 km	9% complete

## 5. Development projects

#### GLNG project (Santos 30%, operator)

Sanctioned in January 2011, GLNG includes the development of CSG resources in the Bowen and Surat Basins in southeast Queensland, construction of a 420-kilometre underground gas transmission pipeline to Gladstone, and two LNG trains with a combined nameplate capacity of 7.8 mtpa on Curtis Island. The project has an estimated gross capital cost of US\$18.5 billion from the final investment decision to the end of 2015 when the second train is expected to be ready for start-up, based on foreign exchange rates which are consistent with the assumptions used at FID (A\$/US\$ 0.87 average over 2011-15).

The project is more than 90% complete and remains on track for first LNG in the second half of 2015, within budget.

#### Upstream

In 2014, 119 wells were drilled in the GLNG acreage (86 development wells and 33 appraisal wells), 153 wells were completed and 307 wells were connected. Twenty-one wells were drilled in the GLNG acreage during the fourth quarter, which included 17 development wells (eight in Fairview and nine in Roma) and four appraisal wells.

In total, 358 wells are on-line. At Fairview, 252 wells are on-line and deliverability continues to exceed expectations, with average per-well gas capacity of 2 TJ/day. At Roma, 106 wells are on-line and average per-well gas capacity continues to grow in-line with expectations, with one development well already producing 2 TJ/day.

Commissioning of the Fairview 5 gas processing hub was completed during the quarter and the facility is now operational. Construction is complete at Fairview hub 4 and nearing completion at Roma hub 2, and commissioning activities are underway at both facilities.

Construction of the 120-kilometre Comet Ridge to Wallumbilla pipeline loop is also complete and commissioning is well underway.



#### Gas transmission pipeline

The 420-kilometre gas transmission pipeline to Curtis Island is complete, gassed-up and handed over to the operations team. Rehabilitation works along the pipeline route have been completed and the two interconnects to the QGC pipeline are also complete.

#### LNG plant

All 111 LNG plant modules (82 train 1 and 29 train 2 modules) have been set on their foundations. Piping installation, pressure testing, cable pulling and terminations continue to progress in both trains.

Commissioning of the LNG plant is well underway, with an increasing number of subsystems commissioned or handed over for commissioning, including main flare, instrument air, nitrogen and emergency electric power generation. Firing of the first gas turbine generator is expected in the coming weeks.

Pneumatic pressure testing of both LNG tanks is complete and installation of the perlite insulation is nearing completion on the first tank. The LNG loading jetty is complete.



GLNG, Curtis Island, January 2015.



# 7. Drilling summary

### 7.1 Appraisal/evaluation wells

The table below details wells drilled during the fourth quarter and their status.

Well name	Basin/area	Target	Santos %	Well status
Barossa-3 <sup>#</sup>	Bonaparte – NT	Gas	25	P&A, successful gas
Cuisinier-17	Cooper - QLD	Oil	54.64	C&S, successful oil
Cuisinier-18	Cooper - QLD	Oil	54.64	P&A
Cuisinier-19	Cooper - QLD	Oil	54.64	Drilling
Munro-8	Cooper - QLD	Oil	60	C&S, successful oil
Nubba-1	Cooper – QLD	Oil	44.42	C&S, successful oil
Tennaperra-4	Cooper - QLD	Oil	70	C&S, successful oil
Tickalara-25	Cooper - QLD	Oil	70	C&C, successful oil
Tickalara-28	Cooper - QLD	Oil	70	P&A
Wicho East-1	Cooper – QLD	Oil	54.64	P&A
Aquamarine-1	Cooper - SA	Gas	60	P&A
Gaschnitz-2	Cooper – SA	Gas	66.6	Drilling
Gaschnitz-3	Cooper – SA	Gas	66.6	C&S, successful gas
Varanus South-1	Cooper - SA	Gas	60	C&S, gas discovery
Yarowinnie South-1	Cooper - SA	Gas	60	C&S, gas discovery
Jenners-1 <sup>#</sup>	Cooper - SA	Oil	25.84	P&A
East Lynne-1	Denison - QLD	CSG corehole	50	P&A, corehole obtained
Mahalo-7	Denison - QLD	CSG	30	C&S, successful CSG
Yebna North-5	Fairview - QLD	CSG	23.85	Drilling
Norwood South-2	Roma - QLD	CSG	30	C&S, successful CSG
Charmwood-1	Roma - QLD	CSG	30	C&S, successful CSG
Saint Kilda-2	Roma - QLD	CSG	30	C&S, successful CSG

### 7.2 Development wells

The table below details development wells drilled during the fourth quarter and their status.

Well name	Basin/area	Target	Santos %	Well status
Bayu Undan DS-01 STI <sup>#*</sup>	Bonaparte – NT	Gas	11.50	C&C, successful gas
Bayu Undan DS-02 <sup>#</sup>	Bonaparte – NT	Gas	11.50	Drilling
Durham Downs-7ST1*	Cooper – QLD	Gas	60.06	C&C, successful gas
Durham Downs 8	Cooper – QLD	Gas	60.06	C&C, successful gas



Well name	Basin/area	Target	Santos %	Well status
Durham Downs North 4	Cooper – QLD	Gas	60.06	C&C, successful gas
Ipundu North 5DW1	Cooper – QLD	Oil	60	C&C, successful oil
Ipundu North 7DW1	Cooper – QLD	Oil	60	C&C, successful oil
Tickalara-26	Cooper – QLD	Oil	70	C&C, successful oil
Balcaminga-2	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-120 <sup>*</sup>	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-121	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-122	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-123	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-126 <sup>*</sup>	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-127	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-131	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-132	Cooper – SA	Gas	66.60	C&S, successful gas
Big Lake-133	Cooper – SA	Gas	66.60	C&S, successful gas
Kanowana-10	Cooper – SA	Gas	66.60	C&S, successful gas
Leleptian-5*	Cooper – SA	Gas	66.60	C&S, successful gas
Leleptian-6	Cooper – SA	Gas	66.60	C&S, successful gas
Mudera-17	Cooper – SA	Gas	66.60	C&S, successful gas
Nephrite South-10	Cooper – SA	Gas	66.60	C&S, successful gas
Nephrite South-11	Cooper – SA	Gas	66.60	C&S, successful gas
Swan Lake-11	Cooper – SA	Gas	66.60	C&S, successful gas
Tallerangie- 2*	Cooper – SA	Gas	72.32	C&S, successful gas
FV13-20-5 <sup>^</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-20-6 <sup>^</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-20-7 <sup>^</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-1*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-2*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-3*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-4*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-5*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-6 <sup>^</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-7 <sup>^</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-03-8 <sup>^</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-26-1	Fairview – QLD	CSG	23.85	C&S, successful CSG



Well name	Basin/area	Target	Santos %	Well status
FV18-26-2	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-26-3	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-26-6	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-26-7	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-26-8	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-26-9	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-26-10	Fairview – QLD	CSG	23.85	Suspended for further deepening
12W-CS-S181 <sup>#</sup>	Nam Con Son - Vietnam	Water injector	31.875	C&C, water injector
12W-CS-N191 <sup>#</sup>	Nam Con Son - Vietnam	Water injector	31.875	C&C, water injector
Angore B1 <sup>#</sup>	Papuan – PNG	Gas	13.50	Drilling
RM09-24-1	Roma – QLD	CSG	30	C&S, successful CSG
RM09-24-2	Roma – QLD	CSG	30	C&S, successful CSG
RM09-24-3	Roma – QLD	CSG	30	C&S, successful CSG
RM13-01-1	Roma – QLD	CSG	30	C&S, successful CSG
RM13-01-2	Roma – QLD	CSG	30	C&S, successful CSG
RM13-15-1	Roma – QLD	CSG	30	C&S, successful CSG
RM13-15-2	Roma – QLD	CSG	30	C&S, successful CSG
RM13-15-3	Roma – QLD	CSG	30	C&S, successful CSG
RM13-15-4	Roma – QLD	CSG	30	C&S, successful CSG

\* Spudded during third quarter 2014

^ Spudded during second quarter 2014

<sup>#</sup> Not operated by Santos



# 8. Abbreviations and conversion factors

Abbreviatio	ns	Conversion factors	Conversion factors		
PJ	petajoules	Sales gas and ethane, 1 PJ	171.937 boe x 10 <sup>3</sup>		
IJ	terajoules	Crude oil, 1 barrel	1 boe		
GJ	gigajoules	Condensate, 1 barrel	0.935 boe		
mmbbl	million barrels	LPG, 1 tonne	8.458 boe		
mmboe	million barrels of oil equivalent	LNG, 1 PJ	18,040 tonnes		
mmbtu	million British thermal units				
mmscf	million standard cubic feet				
mtpa	million tonnes per annum				
т	tonnes				
P&A	plugged and abandoned				
C&S	cased and suspended				
C&C	cased and completed				
NFE	near-field exploration				
WI	water injector				
ST	side track				
CSG	coal seam gas				
LNG	liquefied natural gas				
ра	per annum				
PSC	production sharing contract				
FPSO	floating production, storage & offloading				
DW	deepened well				