

# First Quarter Activities Report

For period ending 31 March 2014

17 April 2014

## Strong progress on growth projects during the first quarter

Santos today announced higher first quarter production and sales revenue, and strong progress on major projects.

Santos Managing Director and Chief Executive Officer David Knox said that the first quarter of 2014 saw the company build momentum for strong project delivery in the year ahead.

"The PNG LNG project is progressing ahead of schedule, with first LNG cargo expected for the middle of this year. The project is currently over 95% complete with first production of condensate from the Hides fields commencing in late March."

"I am also pleased to report that GLNG continues to make good progress, remaining on budget and on track for first LNG in 2015. The project is now 80% complete, with all train 1 modules delivered to Curtis Island, all mainline pipeline in the ground, the marine crossing tunnel complete and the pipeline installed."

"During the quarter, we also delivered the Peluang project in Indonesia ahead of schedule and on budget. Our other Asian project, the Dua oil project in Vietnam is progressing well and remains on track for first oil in mid-2014," Mr Knox said.

### Comparative performance at a glance

Corresponding period	Q1 2014	Q1 2013	Change
Production (mmboe)	12.2	12.1	+1%
Sales (mmboe)	13.8	13.0	+6%
Sales revenue (\$million)	913	713	+28%
Quarterly comparison	Q1 2014	Q4 2013	Change
Production (mmboe)	12.2	13.1	-7%
Sales (mmboe)	13.8	15.6	-12%
Sales revenue (\$million)	913	1,065	-14%

- First quarter production of 12.2 million barrels of oil equivalent (mmboe) was higher than the first quarter of 2013, with higher oil production due to the start-up of Fletcher Finucane in May 2013 offset by lower Western Australian gas production.
- Sales revenue of \$913 million for the March quarter was 28% higher than the corresponding quarter, primarily due to higher third-party crude oil sales.
- Gas production of 50.6 petajoules (8.7 mmboe) was 4% lower than the corresponding quarter, with higher production from Darwin LNG and the Cooper Basin offset by lower production from the Carnarvon Basin due to lower customer nominations. The average gas price of \$5.66/GJ for the March quarter was 4% higher than the corresponding quarter.
- Quarterly crude oil production of 2.5 million barrels was 15% lower than the previous quarter, with higher production from Chim Sáo offset by lower production from Fletcher Finucane and the Cooper Basin. The average oil price for the quarter was A\$128 per barrel, 13% higher than the corresponding quarter.

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## 2014 Guidance

All 2014 guidance is maintained, as shown in the table below.

Item	2014 guidance
Production	52-57 mmboe
Production costs	\$820-880 million
Depreciation, depletion & amortisation (DD&A) expense	\$18.50/boe
Royalty-related taxation expense (after tax) <sup>1</sup>	\$60 million
Capital expenditure (including exploration and evaluation) <sup>2</sup>	\$3.5 billion

<sup>1</sup> Royalty-related taxation expense guidance assumes an average realised oil price of A\$110 per barrel.

<sup>2</sup> Capital expenditure guidance excludes capitalised interest, which is forecast at approximately \$250 million.

Further detail of 2014 year-to-date capital expenditure, including exploration and evaluation expenditure, is reported in the table on page 7 of this report.



*Train 1 (foreground) and Train 2 (background), Curtis Island, 31 March 2014.*



## 1. Production (Santos share)

	Q1 2014	Q1 2013	Q4 2013	Full-year 2013
<b>Sales gas, ethane and LNG (PJ)</b>				
Carnarvon	14.6	16.5	16.6	64.9
Cooper	14.5	13.7	16.1	61.0
Indonesia	6.2	7.1	6.3	26.9
Darwin LNG	4.7	4.0	3.7	16.7
Otway	3.8	4.8	4.7	18.4
Denison/Scotia/Spring Gully	3.0	2.9	3.2	12.0
GLNG	2.6	2.2	2.3	9.6
Vietnam	1.0	0.5	0.2	1.5
PNG LNG	0.2	-	0.1	0.1
Bangladesh	-	1.1	-	1.9
<b>Total production (PJ)</b>	<b>50.6</b>	<b>52.8</b>	<b>53.2</b>	<b>213.0</b>
<b>Total production (mmboe)</b>	<b>8.7</b>	<b>9.1</b>	<b>9.1</b>	<b>36.6</b>
<b>Condensate (000 barrels)</b>				
Cooper	263.5	202.7	260.6	1,043.0
Bayu-Undan	234.4	295.2	180.9	967.5
Carnarvon	135.8	162.0	149.2	627.5
Amadeus	9.7	7.2	7.9	28.4
PNG LNG	4.7	-	-	-
Other <sup>1</sup>	4.5	6.1	6.8	25.4
<b>Total production (000 barrels)</b>	<b>652.6</b>	<b>673.2</b>	<b>605.4</b>	<b>2,691.8</b>
<b>Total production (mmboe)</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>2.5</b>
<b>LPG (000 tonnes)</b>				
Cooper	29.0	28.9	32.7	125.7
Bayu-Undan	12.9	17.5	9.9	55.9
<b>Total production (000 tonnes)</b>	<b>41.9</b>	<b>46.4</b>	<b>42.6</b>	<b>181.6</b>
<b>Total production (mmboe)</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>1.6</b>
<b>Crude oil (000 barrels)</b>				
Cooper	804.1	706.0	848.7	3,104.4
Vietnam	728.1	708.2	679.3	2,658.5
Mutineer-Exeter/Fletcher Finucane	487.3	-	894.3	2,167.9
Stag	250.5	221.6	263.5	1,124.3
Barrow/Thevenard	150.1	178.7	185.2	740.4
Indonesia	33.5	73.6	50.3	203.1
Amadeus	44.1	45.5	38.1	173.1
Queensland	11.2	11.6	13.1	49.9
PNG	13.1	15.7	9.8	49.8
<b>Total production (000 barrels)</b>	<b>2,522.0</b>	<b>1,960.9</b>	<b>2,982.3</b>	<b>10,271.4</b>
<b>Total production (mmboe)</b>	<b>2.5</b>	<b>2.0</b>	<b>3.0</b>	<b>10.3</b>
<b>Total</b>				
<b>Production (mmboe)</b>	<b>12.2</b>	<b>12.1</b>	<b>13.1</b>	<b>51.0</b>

<sup>1</sup> Other includes production from Otway, Indonesia, Queensland and Bangladesh.

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

	Q1 2014	Q1 2013	Q4 2013	Full-year 2013
<b>Sales gas, ethane and LNG</b>				
Sales – own product (PJ)	44.5	50.2	47.5	198.7
Sales – third party (PJ)	7.1	3.5	8.7	28.7
Total sales (PJ)	51.6	53.7	56.2	227.4
Total sales (mmboe)	8.9	9.2	9.7	39.1
Average gas price (A\$/GJ)	5.66	5.43	5.53	5.64
<b>Total sales revenue (\$million)</b>	<b>292</b>	<b>291</b>	<b>311</b>	<b>1,282</b>
<b>Condensate</b>				
Sales – own product (000 barrels)	474.2	472.0	810.7	2,664.8
Sales – third party (000 barrels)	27.4	4.2	70.7	155.4
Total sales (000 barrels)	501.6	476.2	881.4	2,820.2
Total sales (mmboe)	0.5	0.5	0.8	2.6
Average condensate price (A\$/bbl)	103.29	96.07	123.52	110.09
Average condensate price (US\$/bbl)	92.84	99.87	114.73	105.96
<b>Total sales revenue (\$million)</b>	<b>52</b>	<b>46</b>	<b>108</b>	<b>310</b>
<b>LPG</b>				
Sales – own product (000 tonnes)	28.9	51.0	42.9	176.3
Sales – third party (000 tonnes)	1.3	0.7	3.4	10.5
Total sales (000 tonnes)	30.2	51.7	46.3	186.8
Total sales (mmboe)	0.2	0.4	0.4	1.6
Average LPG price (A\$/tonne)	1,054.89	865.83	1,115.95	939.56
Average LPG price (US\$/tonne)	948.14	900.11	1,036.50	904.33
<b>Total sales revenue (\$million)</b>	<b>32</b>	<b>45</b>	<b>52</b>	<b>176</b>
<b>Crude oil</b>				
Sales – own product (000 bbls)	2,720.8	2,027.1	2,753.5	9,830.3
Sales – third party (000 bbls)	1,455.4	872.3	1,917.0	5,333.1
Total sales (000 bbls)	4,176.2	2,899.4	4,670.5	15,163.4
Total sales (mmboe)	4.2	2.9	4.7	15.2
Average crude oil price (A\$/bbl)	128.51	114.12	127.16	120.96
Average crude oil price (US\$/bbl)	115.51	118.64	118.11	116.43
<b>Total sales revenue (\$million)</b>	<b>537</b>	<b>331</b>	<b>594</b>	<b>1,834</b>
<b>Total</b>				
Sales – own product (mmboe)	11.1	11.5	12.1	48.0
Sales – third party (mmboe)	2.7	1.5	3.5	10.5
<b>Total sales volume (mmboe)</b>	<b>13.8</b>	<b>13.0</b>	<b>15.6</b>	<b>58.5</b>
Third party product purchases (\$m)	180	99	249	745
Sales – own product (\$million)	682	537	768	2,772
Sales – third party (\$million)	231	176	297	830
<b>Total sales revenue (\$million)</b>	<b>913</b>	<b>713</b>	<b>1,065</b>	<b>3,602</b>

### 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 14.5 PJ was 6% higher than Q1 2013 due primarily to higher production capacity partly offset by higher downtime. Production for the quarter was 10% lower than Q4 2013 due to lower seasonal gas demand and higher planned downtime due to planned shutdowns to prepare the plant for the start-up of the new contracts in 2015. Gas production capacity continued to be added during the quarter with six new gas wells brought on line. LPG production of 29,000 tonnes and condensate production of 263,500 barrels was higher than the corresponding quarter, due to higher gas production and liquids yields.

In the South Australian Cooper Basin, the gas development program continued with ten wells cased and suspended as future gas producers. Drilling of the Cooba-5, Narie-3 and Moomba-202 wells was completed, with all wells cased and suspended as future producers. Drilling also has commenced on the Gooranie field, with the first well Gooranie-6 cased and suspended as a future Patchawarra producer.

Work continued on the Big Lake 30-well infill drilling program during the quarter, with two drilling rigs in operation. Drilling was completed on the first five-well Big Lake pad, with the final three wells (Big Lake 97-99) cased and suspended as future Patchawarra/Tirrawarra producers. Drilling has commenced using two rigs on two four-well pads, with the Big Lake-102 and Big Lake-103 wells cased and suspended on the first pad and Big Lake-106 cased and suspended on the second pad. The Big Lake-100 vertical development well and Big Lake-101 appraisal well were also cased and suspended during the quarter as future producers.

In south-west Queensland, a three-well development drilling campaign was completed in the Barrolka field, with all three wells cased and suspended as future Toolachee producers. Following that campaign, the rig moved to the Baryulah field, with the Baryulah-18 well cased and suspended as a future Toolachee/Epsilon/Patchawarra producer.

##### Crude oil

Crude oil production of 804,100 barrels was 5% lower than the previous quarter, due to natural well decline from projects brought online in the fourth quarter.

In south-west Queensland, a three-well development campaign was completed during the quarter across the Tintaburra and Toobunyah oil fields. The Tintaburra-8, Toobunyah-10 and Toobunyah-11 wells were all cased and suspended as future Hutton oil producers.

In the Tintaburra Block, a five-well drill appraisal campaign in the Ipundu and Ipundu North area was completed, with all five wells cased and suspended as future potential Wyandra and Murta producers. Four of the five wells are currently being completed as Wyandra and Murta oil producers, with one completion contingent on production performance of the first four wells. Drilling commenced in PL 303 with the Cuisinier-14 well cased and suspended as a future oil producer.

#### Denison/Scotia/Spring Gully

Sales gas production of 3.0 PJ was higher than Q1 2013, with higher production from the Scotia field.

##### GLNG

Sales gas production of 2.6 PJ was higher than Q1 2013, due to higher domestic gas nominations and increased injection capacity into Roma underground storage. Gross average daily production from the Fairview field during the quarter was 109 TJ/day.

## Otway

Sales gas production of 3.8 PJ was 21% lower than Q1 2013 mainly due to a planned shutdown at the Iona gas plant during the quarter combined with natural well decline. Production from the Casino hub was 3.3 PJ of sales gas and 1,900 barrels of condensate. Minerva production was 0.5 PJ of sales gas and 1,200 barrels of condensate.

## Narrabri

The Narrabri appraisal program continued during the quarter, with the drilling of four wells and the restart of three existing pilot wells. In addition, a workover rig arrived in March to install down hole pumps in various new pilot wells and carry out maintenance. Construction of the new water storage facilities at Leewood is progressing, with the facility receiving the first produced water in early April. The Wilga Park Power Station re-commenced operations in early-April, using natural gas from nearby pilot wells to generate electricity for supply to the local grid.

In early April, Santos submitted its Preliminary Environmental Assessment for the Narrabri Gas Project to the NSW government, the first step in the formal assessment process.

## Carnarvon

Gas production of 14.6 PJ was 12% lower than Q1 2013 primarily due to lower CITIC nominations at Devil Creek. Condensate production of 135,800 barrels reflected the lower gas production.

Total oil production for the quarter of 887,900 barrels was lower than the previous quarter, due to natural field decline from the Fletcher Finucane fields as well as down time due to cyclone activity in January and some operational issues. Gross production from Fletcher Finucane during the quarter was 13,300 barrels per day. Production from Stag and Barrow was in line with the previous quarter, with some impact due to cyclone activity in January. Production from the Thevenard asset ceased during the quarter.

## Bayu-Undan/Darwin LNG

Gross Bayu-Undan gas production of 53.2 PJ was higher than Q1 2013 due to improved DLNG uptime and production capacity. Gross Bayu-Undan condensate production of 2.9 mmbbl and gross LPG production of 145,100 tonnes were 35% lower than Q1 2013 due to lower offshore well capacity and decline in condensate yield. Santos' net entitlement to production was 4.7 PJ of gas, 234,400 barrels of condensate and 12,900 tonnes of LPG.

Work continued on the Bayu-Undan Phase 3 project during the quarter, and is now over 35% complete. This project will deliver incremental liquids recovery and higher offshore well capacity through the development of two subsea wells tied back into the existing platform, with first gas targeted for 2015.

## Indonesia

Santos' net entitlement to gas production of 6.2 PJ was lower than the corresponding period with new production from Peluang offset by lower entitlement at Oyong and Wortel and a planned shutdown at Maleo. Combined Wortel and Oyong gross gas production for the quarter was 78.5 mmscf/day, with gross production from Maleo of 59 mmscf/day.

## Vietnam

Gross average oil production from Chim Sáo during the March quarter was 26,459 barrels per day. Santos' net entitlement to production of 728,100 barrels for the quarter was 7% higher due to improved FPSO reliability and operations performance. Santos' share of gas production during the March quarter was 1.0 PJ.

## PNG

SE Gobe oil production of 13,100 barrels was higher due to facility shutdowns to enable well work-overs which were completed during the fourth quarter. Production of condensate from the PNG LNG Hides field commenced in late March. Santos' share of production from the PNG LNG project was 4,700 barrels of condensate and 0.2 PJ of commissioning gas during the quarter.

## 4. Capital expenditure

Total exploration, evaluation and development expenditure is summarised in the table below.

	Q1 2014	Q1 2013	Q4 2013	Full-year 2013
Exploration	63	53	84	391
Evaluation	56	21	98	227
Development and other PP&E	758	799	1,031	3,523
Capitalised interest	67	64	66	228
<b>Total capital expenditure</b>	<b>944</b>	<b>937</b>	<b>1,279</b>	<b>4,369</b>
From current year expenditure:				
Exploration	27	10	97	135
Evaluation	14	14	19	62
Total current year expenditure	41	24	116	197
Write-off of amounts capitalised in prior years	-	3	-	3
<b>Total expended</b>	<b>41</b>	<b>27</b>	<b>116</b>	<b>200</b>

### 4.1 Exploration activity

Well name	Basin/area	Target	Santos %	Well status
Mt Kitty-1	Amadeus – NT	Gas	70	Gas discovery, evaluation on-going
Lasseter-1	Browse – WA	Gas	30	Drilling
Vanuatu-1	Carnarvon – WA	Oil	37.5	P&A, dry hole
Moomba-193H	Cooper – SA	Gas	66.6	C&S, successful gas
Manta-1	Papuan – PNG	Gas	30 <sup>#</sup>	C&S, pending testing
NW Koko-1	Papuan – PNG	Gas	30 <sup>#</sup>	C&S, pending testing
OIG-4	Sumatra – Indonesia	CSG	10 <sup>*</sup>	P&A, corehole obtained
OIG-5	Sumatra – Indonesia	CSG	10 <sup>*</sup>	Drilling

<sup>#</sup>Santos' acquisition of a 30% interest is subject to certain conditions precedent and on obtaining PNG Government approval.

<sup>\*</sup>Current interest is 10%, with an option to move to 60%.

#### Western Australia and Northern Territory

In the Amadeus Basin in the Northern Territory, drilling recommenced at the Mt-Kitty exploration well within EP 125. Following the successful top hole drilling during the third quarter of 2013, the hole was re-entered in late March 2014 and as of early April had reached its programmed total depth of 2,295 metres in meta-sedimentary basement. The well is a gas discovery in the primary Heavitree sandstone objective and evaluation is on-going. Also in the Northern Territory, processing is nearing completion for the newly acquired seismic data in the Southern Amadeus Basin and McArthur Basin.

In the WA-274-P permit in the Browse Basin, the Lasseter-1 exploration well was spudded on 22 March 2014 using the Jack Bates drilling rig. Drilling is progressing and the well is currently at a depth of 2,014 metres where the 20 inch surface casing is being installed. Lasseter-1 is a follow-up to the Crown discovery in 2012.

Also offshore Western Australia, the Vanuatu-1 well in the Carnarvon Basin was drilled to a total depth of 3,260 metres. Minor hydrocarbon shows were observed and the well was plugged and abandoned. The rig was released on 2 April 2014.



## Cooper Basin unconventional gas

The unconventional gas exploration and commercialisation program continued as planned with several milestones and project objectives achieved during the first quarter. Within the Nappamerri Trough Basin Centred Gas play, initial flow testing was completed on the Langmuir-1 vertical well located within PPL-102. Ten fracture stimulation stages were placed across sand, shale and coal intervals within the Toolachee, Patchawarra and Tirrawarra formations. During the two week post-frac clean-up period, the well flowed at a peak rate of 1.5 mmscf/day and approximately 500 barrels per day of recovered fracturing fluids before the wellbore began to load up with fluid, suppressing inflow. Post-frac perforations will be added in the second quarter and the completion run before undertaking further testing.

Also in the Nappamerri Trough PPL-194, fracture stimulation of Van der Waals-1 was suspended early in the quarter for operational issues following the placement of two stages in the Lower Patchawarra formation. These operational issues are resolved and rescheduling of the remaining scope is pending.

In the Roswell project in the REM shale play, the Roswell-2 horizontal shale well was successfully stimulated and flow tested during the quarter. Roswell-2, located in PPL-9 adjacent to the Moomba North field, is a horizontal well drilled to a measured depth of 3,481 metres which includes a 550 metre horizontal lateral section within the lower Roseneath Shale. Five fracture stimulation treatments were placed along the lateral section. Additional diagnostics including surface micro-seismic monitoring and stimulation stage fluid tracers were also obtained to provide critical information for optimisation of future wells. Following stimulation, Roswell-2 was tested for 28 days, flowing at a rate of 0.75 mmscf/day, measuring a stable 100 psi on a 48/64 inch choke with an associated CO<sub>2</sub> content consistent with that historically produced in the Moomba North area of the Cooper Basin.

In the Aurora project, the Moomba-193H horizontal well was drilled to a measured depth of 3,996 metres with a horizontal lateral length of approximately 900 metres within the Murteree Shale. Moomba-193H is a direct offset to the successful vertical shale gas well Moomba-191, and is Santos' second horizontal shale gas well. Fracture stimulation activities are scheduled for mid-2014, with 10 frac stages planned with further optimised stimulation treatments based on Roswell-2 learnings to scale up flow rates.

In the Fortuna project, construction work is underway to connect the successful Moomba-194 vertical well into the production infrastructure.

## Asia

A three-well campaign in the Western Province of Papua New Guinea, operated by Talisman, continued in the first quarter. The Manta-1 well, which was spudded on 2 November 2013, was cased and suspended and the rig was released on 14 January 2014. The NW Koko-1 well was spudded on 14 February 2014, and was cased and suspended. Both wells will be tested during the second quarter of 2014.

Drilling continued in the South Sumatra CSG exploration campaign in Indonesia, to evaluate the CSG potential of the Muara Enim Formation.

## 4.2 Seismic activity

Permit	Basin/area	Survey	Type	km/km <sup>2</sup>	Status
PPL 7/8	Cooper – SA	Moomba North micro-seismic	Passive monitoring	28 km	Complete
PPL 7/9/11	Cooper – SA	Roswell micro-seismic	Passive monitoring	28 km	Complete
ATP 661P	Cooper – QLD	Betoota 2D	Onshore 2D	205 km	24% complete



## 5. Development projects

Development expenditure during the first quarter of 2014 was \$758 million. The status of development projects during the first quarter is as follows.

### Peluang (Santos 67.5%, operator)

Sanctioned in February 2013, the Peluang gas project is located adjacent to the Maleo gas field, offshore East Java in Indonesia. Peluang is a single horizontal well development with a minimum facility wellhead platform tied-back by pipeline to the existing facilities at Maleo.

Gas production from Peluang commenced in March 2014, and the project was delivered ahead of schedule and on budget. Gross peak production from Peluang is expected to be 25 million standard cubic feet per day. For further information, refer to the ASX release of 24 March 2014.



*Peluang wellhead platform, March 2014.*

### Dua (Santos 31.875%, Premier Oil operator)

The Dua oil project is located in Block 12W in the Nam Con Son Basin, offshore Vietnam. The project was sanctioned in August 2012 and involves the development of a three-well subsea tie-back to the existing Chim Sáo facilities. The average gross production rate is estimated to be 8,000 barrels per day for the first 12 months of production.

The project is over 75% complete and on track for first oil in mid-2014. Development drilling is underway with the first two wells spudded.

### PNG LNG (Santos 13.5%, ExxonMobil operator)

Sanctioned in December 2009, the PNG LNG project will develop gas and condensate resources in the Hides, Angore and Juha fields and associated gas resources in the operating oil fields of Kutubu, Agogo, Gobe and Moran in the Southern Highlands, Hela and Western Provinces of Papua New Guinea. The gas will be transported by pipeline to a gas liquefaction plant 25 kilometres north-west of Port Moresby with a capacity of 6.9 mtpa. The project has an estimated gross capital cost of US\$19 billion.

The project is more than 95% complete and on track for first LNG cargo delivery ahead of schedule in mid-2014, within the current budget.

Production of condensate from the Hides gas fields commenced in late March as part of the commissioning and start-up activities at the Hides Gas Conditioning Plant. The condensate will be transported to the Kutubu Central Processing Facility, blended with crude oil, and sold for export via the offshore Kumul Terminal.

Mechanical completion was achieved for all subsystems required for first gas production at the Hides Gas Conditioning Plant in early March following introduction of commissioning gas in December 2013. At the end of March, the Hides B1 and B2 wells were brought on line and are flowing gas into the export line to the LNG Plant as part of start-up operations. Four development wells are now completed and perforated and two further development wells have been successfully drilled and completed and are awaiting perforation. Drilling is currently underway on the G pad wells and on the produced water disposal well. Construction of the onshore pipeline and the spinline from wellpad B to the Hides Gas Conditioning Plant are complete.

At the LNG plant, the Train 1 process, storage and loading systems have been dried and are ready for start-up. Three of the five Train 2 refrigeration compressors have completed a mechanical run test, and the contractor requested the Train 2 completion acknowledgement from the Operator in early April. The jetty and LNG tanks are ready for start-up, and the low-pressure flare has been lit to support drying of storage and loading systems.



*Hides Gas Conditioning Plant, PNG LNG, March 2014.*



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

Sanctioned in January 2011, GLNG includes the development of CSG resources in the Bowen and Surat Basins in south-east 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 80% complete and remains on track for first LNG in 2015, within the current budget.

#### Upstream

In line with the 2014 drilling plan, thirty-five wells were spudded in the GLNG acreage during the first quarter, which included 24 development wells (19 at Fairview, 5 at Roma) and 11 appraisal wells.

The deliverability of existing wells in Fairview continues to exceed expectations, with a current average optimum gas rate of 1.9 TJ/day per well from the 171 current producing wells. The Roma field continues to perform in line with expectations, with 50 wells on line and dewatering of the field underway.

Construction at the three upstream gas hubs progressed towards 85% complete during the quarter, with a focus on the critical activities required to achieve mechanical completion. The planning and ramp up of commissioning activities has commenced.

#### Gas transmission pipeline

The 420-kilometre gas transmission pipeline is progressing well and remains on track for completion in the second quarter of 2014. All pipeline is in the ground and reinstatement is complete on 85% of the pipeline route. Pre-commissioning is well underway, with 85% of clean and gauge activities successfully completed and 48% of the pipeline hydrotested.

A major milestone was achieved during the quarter with construction completed on the 4.3 kilometre marine crossing tunnel and the pipeline successfully installed. Testing, tie-ins and end plug construction is underway.

#### LNG plant

Construction on Curtis Island continues to progress well. All of the 82 Train 1 modules have now been delivered to site and installation is nearing completion. Six of the 29 Train 2 modules have been delivered to site, and construction is underway on all of the remaining Train 2 modules. Module connections, piping fit-up and welding, and cable pulling are progressing, and the gas flare stacks raised into position.

Three of the five inner nickel steel tank shell rings for Tank B have been installed, and installation of internal instrumentation piping has commenced. Work also continues on Tank A, with two of the five nickel steel tank shell rings installed.

The jetty is over 95% complete with the installation of quick release mooring hooks and fenders complete, and installation of the gangway tower and pre-commissioning works commenced. The Central Control & Administration and Marine Terminal Buildings are over 90% complete with commissioning and handover procedures commenced.



GLNG project (Santos 30%, operator) continued



*LNG tanks, Curtis Island, 31 March 2014.*



*LNG jetty, Curtis Island, 31 March 2014.*



## 7. Drilling summary

### 7.1 Appraisal/evaluation wells

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

Well name	Basin/area	Target	Santos %	Well status
West Mereenie-19 <sup>^</sup>	Amadeus – NT	Oil	100	C&S, successful oil
West Mereenie-20 <sup>^</sup>	Amadeus – NT	Oil	100	C&S, successful oil
West Mereenie-23 <sup>^</sup>	Amadeus – NT	Oil	100	C&S, successful oil
West Mereenie-24ST1 <sup>^</sup>	Amadeus – NT	Oil	100	C&S, successful oil
Bottle Tree-3	Arcadia – QLD	CSG	23.87	C&S, successful CSG
Mt Kingsley-6	Arcadia – QLD	CSG	23.87	C&S, successful CSG
Sunnyholt-9	Arcadia – QLD	CSG	23.87	C&S, successful CSG
Sunnyholt-12	Arcadia – QLD	CSG	23.87	C&S, successful CSG
Sunnyholt-13	Arcadia – QLD	CSG	23.87	C&S, successful CSG
Big Lake-101	Cooper – SA	Gas	66.6	C&S, successful gas
Ipundu North-14 <sup>*</sup>	Cooper – QLD	Oil	60	C&S, successful oil
Ipundu-19 <sup>*</sup>	Cooper – QLD	Oil	60	C&S, successful oil
Ipundu-20	Cooper – QLD	Oil	60	C&S, successful oil
FV03-15-1	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV03-15-2	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV03-15-3 <sup>*</sup>	Fairview – QLD	CSG	23.85	C&S, successful CSG
Dewhurst-23	Gunnedah – NSW	CSG	80	C&S, successful CSG
Dewhurst-26	Gunnedah – NSW	CSG	80	C&S, successful CSG
Dewhurst-27	Gunnedah – NSW	CSG	80	C&S, successful CSG
Dewhurst-28	Gunnedah – NSW	CSG	80	C&S, successful CSG
Mayfield-5	Roma – QLD	CSG	30	C&S, successful CSG
Mayfield-6	Roma – QLD	CSG	30	C&S, successful CSG
Mayfield-7	Roma – QLD	CSG	30	C&S, successful CSG

## 7.2 Development wells

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

Well name	Basin/area	Target	Santos %	Well status
Big Lake-97*	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-98	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-99	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-100	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-102	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-103	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-106	Cooper – SA	Gas	66.6	C&S, successful gas
Big Lake-107	Cooper – SA	Gas	66.6	Drilling
Brolga-5	Cooper – SA	Gas	66.6	Drilling
Cooba-5	Cooper – SA	Gas	66.6	C&S, successful gas
Gooranie-6	Cooper – SA	Gas	66.6	C&S, successful gas
Moomba-202	Cooper – SA	Gas	66.6	C&S, successful gas
Narie-3	Cooper – SA	Gas	66.6	C&S, successful gas
Barrolka-11*	Cooper – QLD	Gas	60.06	C&S, successful gas
Barrolka-12*	Cooper – QLD	Gas	60.06	C&S, successful gas
Barrolka-13*	Cooper – QLD	Gas	60.06	C&S, successful gas
Baryulah-18	Cooper – QLD	Gas	60.06	C&S, successful gas
Cuisinier-14	Cooper – QLD	Oil	54.64	C&S, successful oil
Tintaburra-8	Cooper – QLD	Oil	60	C&S, successful oil
Toobunyah-10	Cooper – QLD	Oil	60	C&S, successful oil
Toobunyah-11	Cooper – QLD	Oil	60	C&S, successful oil
Peluang-2	East Java – Indonesia	Gas	67.5	C&S, successful gas
FV10-25-1	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV10-25-2	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV10-25-3	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV11-44-2	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV11-44-3ST1	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV11-44-4	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV12-01-1	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV12-01-2*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-09-4DW1^	Fairview – QLD	CSG	23.85	C&S, successful CSG

Well name	Basin/area	Target	Santos %	Well status
FV13-09-7*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-09-8*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-14-5^	Fairview – QLD	CSG	23.85	Suspended
FV13-14-6^	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-14-8^	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-14-9°	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-14-10°	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV13-21-1	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV13-21-2	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV13-21-3	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV13-21-4	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV13-21-5	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV13-21-6	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-02-3	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-02-4	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-02-5	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-02-6	Fairview – QLD	CSG	23.85	Suspended for further deepening
FV18-02-7	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-15-2*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-15-3*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-15-4*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-15-5*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-15-6*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-15-7*	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-16-7	Fairview – QLD	CSG	23.85	C&S, successful CSG
FV18-16-8	Fairview – QLD	CSG	23.85	C&S, successful CSG
12W-Dua – N1P <sup>#</sup>	Nam Con Son - Vietnam	Oil	31.875	Drilling
12W-Dua – N2P <sup>#</sup>	Nam Con Son - Vietnam	Oil	31.875	Suspended for further deepening
Hides D1 <sup>^#</sup>	Papuan – PNG	Gas	13.5	C&C, successful gas
Hides D2 <sup>*#</sup>	Papuan – PNG	Gas	13.5	C&C, successful gas
Hides G1 <sup>*#</sup>	Papuan – PNG	Gas	13.5	Suspended for further deepening
Hides G2 <sup>#</sup>	Papuan – PNG	Gas	13.5	Suspended for further deepening
Hides PWD-1	Papuan – PNG	Water injector	13.5	Drilling

Well name	Basin/area	Target	Santos %	Well status
RM08-14-4 <sup>^</sup>	Roma – QLD	CSG	30	C&S, successful CSG
RM08-16-3 <sup>*</sup>	Roma – QLD	CSG	30	C&S, successful CSG
RM08-16-4	Roma – QLD	CSG	30	C&S, successful CSG
RM09-05-1	Roma – QLD	CSG	30	C&S, successful CSG
RM09-05-2	Roma – QLD	CSG	30	C&S, successful CSG
RM09-05-3	Roma – QLD	CSG	30	C&S, successful CSG
RM09-05-4	Roma – QLD	CSG	30	C&S, successful CSG

\* Spudded during fourth quarter 2013; ^ Spudded during third quarter 2013; ° Spudded during second quarter 2013; ~ Spudded during first quarter 2013.

# Not operated by Santos

## 8. Abbreviations and conversion factors

Abbreviations		Conversion factors	
PJ	petajoules	Sales gas and ethane, 1 PJ	171.937 boe x 10 <sup>3</sup>
TJ	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 t
mmbtu	million British thermal units		
mmscf	million standard cubic feet		
mtpa	million tonnes per annum		
t	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		
pa	per annum		
PSC	production sharing contract		
FPSO	floating production, storage & offloading		