

Second Quarter
Activities Report
For period ending 30 June 2013



19 July 2013

Comparative performance at a glance

Corresponding period	Q2 2013	Q2 2012	Change
Production (mmboe)	12.4	13.0	-5%
Sales (mmboe)	14.4	14.9	-3%
Sales revenue (\$million)	797	739	+8%
Quarterly comparison	Q2 2013	Q1 2013	Change
Production (mmboe)	12.4	12.1	+2%
Sales (mmboe)	14.4	13.0	+11%
Sales revenue (\$million)	797	713	+12%
Year-to-date comparison	2013	2012	Change
Production (mmboe)	24.5	25.4	-4%
Sales (mmboe)	27.4	29.0	-6%
Sales revenue (\$million)	1,510	1,493	+1%

Growth projects on track; record first half sales revenue

- > Santos today announced second quarter production of 12.4 million barrels of oil equivalent (mmboe), 2% higher than the first quarter of 2013.
- > Gas production of 51.7 PJ (8.9 mmboe) was 6% lower than the corresponding period, with higher production from Darwin LNG offset by lower production in the Cooper and Carnarvon Basins and Indonesia.
- > The average gas price of \$5.61/GJ for the June quarter was a record and 16% higher than the corresponding quarter, driven by higher sales from Darwin LNG and higher gas prices in the Cooper Basin and Indonesia.
- > Quarterly crude oil production of 2.4 mmbbl was 27% higher than the previous quarter, with the start-up of Fletcher Finucane in late May and higher production from Stag and the Cooper Basin.
- > Sales revenue of \$797 million for the June quarter was 8% higher than the corresponding quarter, primarily due to higher oil sales and stronger gas prices.
- > Production guidance for 2013 has been reduced by approximately 3% to 52 to 55 mmboe. Refer page 2 for further details.

Key activities during the period

- > First oil production from Fletcher Finucane offshore Western Australia on 20 May 2013, ahead of schedule and on budget.
- > Gas discoveries at the Bassett West, Bianchi and Winchester wells offshore Western Australia.
- > Major growth projects on track: PNG LNG is approaching 90% complete and on track for first LNG in 2014, and GLNG is over 60% complete and on track for first LNG in 2015.
- > Significant milestones achieved at the GLNG project, including 70 wells spudded during the quarter, the first LNG tank roof raise successfully completed, the first Train 1 modules installed on Curtis Island and an agreement signed with QGC to interconnect both projects' major pipelines.
- > Execution of a binding agreement with Drillsearch Limited relating to a series of permits in the Cooper Basin that will see Santos grow its significant portfolio of oil and gas assets in the region.

Santos Chief Executive Officer David Knox said that Santos continued to achieve significant milestones across the business during the quarter, building the foundations for future growth.

“We’ve delivered the Fletcher Finucane project on budget and ahead of schedule, announced gas discoveries at the Bassett West, Bianchi and Winchester exploration wells and increased our Cooper Basin acreage.”

“I’m pleased to report that GLNG is now over 60% complete, with the first LNG tank roof raise complete, first modules installed and the marine crossing tunnel progressing ahead of schedule.”

“This quarter also saw us finalising the first significant bilateral agreement between Queensland’s LNG projects, linking the GLNG and QCLNG projects’ pipelines. This agreement will allow for improved flexibility and efficiency in our operations and demonstrates the potential of collaboration.”

“PNG LNG, our other major growth project remains on track to deliver its first LNG cargo next year, providing a substantial boost to our production, and it is our intent to review capital management options as we approach PNG LNG production,” Mr Knox said.

2013 Guidance

Production guidance for 2013 has been reduced by approximately 3% to 52 to 55 mmboe. Guidance was previously 53 to 57 mmboe. The revision is primarily due to:

- deferred oil and gas production from Chim São due to power system constraints on the FPSO, which are expected to be resolved by the end of 2013 (impact approximately 0.7 mmboe Santos share);
- natural field decline in Sangu, which has been steeper than expected and production is now forecast to cease in the third quarter of 2013 (impact approximately 0.5 mmboe Santos share), and
- deferred Carnarvon oil production primarily due to poor weather, workovers on Stag and the Mutineer-Exeter FPSO dry-docking (impact approximately 0.4 mmboe Santos share).

All other guidance is maintained, however production costs are expected to be at the upper end of the range.

Item	2013	
	Previous guidance	Revised guidance
Production (mmboe)	53 - 57	52 – 55
Production costs (\$million)	630 - 660	No change
Depreciation, depletion & amortisation (DD&A) expense (\$/boe)	16.50	No change
Royalty-related taxation expense (\$million after tax) ¹	50	No change
Capital expenditure (including exploration and evaluation) (\$billion) ²	4.0	No change

¹Royalty-related taxation expense guidance assumes an average realised oil price of A\$100 per barrel.

²Capital expenditure guidance excludes capitalised interest.

Further detail of 2013 year-to-date capital expenditure, including exploration and evaluation expenditure, is reported in the table on page 7 of this report.

2013 Half-year results

Santos will release its results for the half-year ended 30 June 2013 on Friday, 16 August 2013. The half-year report (incorporating Appendix 4D) and associated investor presentation will be available on Santos’ website at www.santos.com. A webcast briefing including investor/analyst questions will also be available on Santos’ website from 11:00am AEST on 16 August 2013.

I. Production

	Quarter ended			YTD		Full-year 2012
	Q2 2013	Q2 2012	Q1 2013	2013	2012	
Sales gas, ethane and LNG (PJ)						
Carnarvon	15.5	16.1	16.5	32.0	32.8	65.0
Cooper	14.4	17.0	13.7	28.1	32.2	66.6
Indonesia	6.8	7.8	7.1	13.9	14.8	28.1
Otway	4.1	4.7	4.8	8.9	8.8	19.4
Darwin LNG	4.4	2.2	4.0	8.4	6.1	14.4
Denison/Scotia/Spring Gully	2.8	3.1	2.9	5.7	6.1	11.2
GLNG	2.7	2.6	2.2	4.9	5.1	10.8
Bangladesh	0.6	0.9	1.1	1.7	1.4	4.9
Vietnam	0.4	0.6	0.5	0.9	0.8	2.1
Total production (PJ)	51.7	55.0	52.8	104.5	108.1	222.5
Total production (mmboe)	8.9	9.5	9.1	18.0	18.6	38.3
Condensate (000 bbls)						
Bayu-Undan	255.3	249.8	295.2	550.5	567.4	1,174.1
Cooper	296.0	255.9	202.7	498.7	549.3	1,030.7
Carnarvon	153.8	154.3	162.0	315.8	316.1	635.6
Amadeus	7.1	7.3	7.2	14.3	14.8	29.9
Otway	4.0	6.1	4.4	8.4	9.8	19.7
Indonesia	1.1	0.8	1.2	2.3	2.4	5.6
Bangladesh	1.7	-	-	1.7	-	-
Queensland	-	0.2	0.5	0.5	0.8	1.8
Total production (000 bbls)	719.0	674.4	673.2	1,392.2	1,460.6	2,897.4
Total production (mmboe)	0.7	0.6	0.6	1.3	1.4	2.7
LPG (000 tonnes)						
Cooper	30.4	36.5	28.9	59.3	67.7	125.1
Bayu-Undan	14.4	14.4	17.5	31.9	33.0	69.4
Total production (000 tonnes)	44.8	50.9	46.4	91.2	100.7	194.5
Total production (mmboe)	0.4	0.5	0.4	0.8	0.9	1.6
Crude oil (000 bbls)						
Cooper	731.3	809.7	706.0	1,437.3	1,549.6	3,226.1
Vietnam	699.7	675.6	708.2	1,407.9	1,280.3	2,870.2
Stag	309.4	415.1	221.6	531.0	681.4	1,411.6
Mutineer-Exeter/Fletcher Finucane	458.3	159.0	-	458.3	321.1	604.0
Barrow	135.1	145.0	135.4	270.5	286.6	566.6
Indonesia	24.7	105.9	73.6	98.3	177.5	340.2
Thevenard	52.1	22.0	43.3	95.4	70.3	180.6
Amadeus	45.0	49.2	45.5	90.5	99.1	198.0
PNG	14.1	19.8	15.7	29.8	41.4	73.8
Queensland	11.7	16.4	11.6	23.3	37.5	66.8
Total production (000 bbls)	2,481.4	2,417.7	1,960.9	4,442.3	4,544.8	9,537.9
Total production (mmboe)	2.4	2.4	2.0	4.4	4.5	9.5
TOTAL						
Production (mmboe)	12.4	13.0	12.1	24.5	25.4	52.1

2. Sales volumes and sales revenue

	Quarter ended			YTD		Full-year 2012
	Q2 2013	Q2 2012	Q1 2013	2013	2012	
Sales gas, ethane and LNG						
Sales – own product (PJ)	51.3	55.2	50.2	101.5	103.7	218.1
Sales – third party (PJ)	7.0	10.1	3.5	10.5	21.9	40.0
Total sales (PJ)	58.3	65.3	53.7	112.0	125.6	258.1
Total sales (mmboe)	10.1	11.1	9.2	19.3	21.5	44.3
Average gas price (A\$/GJ)	5.61	4.82	5.43	5.52	4.98	5.11
Total sales revenue (\$million)	327	314	291	618	625	1,319
Condensate						
Sales – own product (000 bbls)	589.2	532.4	472.0	1,061.2	1,265.1	2,982.7
Sales – third party (000 bbls)	19.7	32.8	4.2	23.9	81.9	197.8
Total sales (000 bbls)	608.9	565.2	476.2	1,085.1	1,347.0	3,180.5
Total sales (mmboe)	0.5	0.6	0.5	1.0	1.3	3.0
Average condensate price (A\$/bbl)	98.45	102.96	96.07	97.40	101.95	101.04
Average condensate price (US\$/bbl)	97.15	104.07	99.87	97.74	105.27	104.64
Total sales revenue (\$million)	60	58	46	106	137	321
LPG						
Sales – own product (000 tonnes)	35.1	40.0	51.0	86.1	95.3	181.7
Sales – third party (000 tonnes)	2.4	-	0.7	3.1	1.3	10.0
Total sales (000 tonnes)	37.5	40.0	51.7	89.2	96.6	191.7
Total sales (mmboe)	0.4	0.3	0.4	0.8	0.8	1.6
Average LPG price (A\$/tonne)	815.07	905.16	865.83	844.50	920.13	933.52
Average LPG price (US\$/tonne)	804.31	915.36	900.11	847.37	950.12	966.75
Total sales revenue (\$million)	30	36	45	75	89	179
Crude oil						
Sales – own product (000 bbls)	2,442.4	2,110.4	2,027.1	4,469.5	4,056.4	9,532.7
Sales – third party (000 bbls)	993.0	762.5	872.3	1,865.3	1,365.8	2,776.8
Total sales (000 bbls)	3,435.4	2,872.9	2,899.4	6,334.8	5,422.2	12,309.5
Total sales (mmboe)	3.4	2.9	2.9	6.3	5.4	12.3
Average crude oil price (A\$/bbl)	110.63	115.33	114.12	112.23	118.42	113.78
Average crude oil price (US\$/bbl)	109.17	116.56	118.64	112.61	122.28	117.83
Total sales revenue (\$million)	380	331	331	711	642	1,401
Total						
Sales – own product (mmboe)	12.2	12.4	11.5	23.7	23.8	51.3
Sales – third party (mmboe)	2.2	2.5	1.5	3.7	5.2	9.9
Total sales volume (mmboe)	14.4	14.9	13.0	27.4	29.0	61.2
Total sales revenue (\$million)	797	739	713	1,510	1,493	3,220

3. Production 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

Sales gas and ethane production was 15% lower than the corresponding quarter, primarily due to natural field decline. However, production was 5% higher than Q1 2013, reflecting the ongoing capacity build and increased drilling activity, combined with a lower level of planned shutdown activity. During the quarter, 12 gas development wells were successfully cased and suspended, including eight of the 16-well Cowralli pad, and 26 gas wells were connected.

Drilling activities were interrupted due to the suspension of drilling operations by Saxon Energy Services Australia Pty Ltd (Saxon) following a rig floor incident on Saxon Rig 185 in the Fairview field in Queensland, which tragically resulted in a fatality on 23 June 2013. All drilling operations by Saxon in the Cooper Basin remained suspended at the end of the quarter, while internal and external investigations were conducted. It is expected that the Saxon rigs will resume operations by the end of July.

Crude oil production of 731,300 barrels was 4% higher than the previous quarter due to improved downtime performance and uplift from Toobunyah and Zeus wells that were brought on line during the quarter. The Cuisinier appraisal drilling program was completed during the quarter, with the remaining four wells cased and suspended as future Murta producers.

Denison/Scotia/Spring Gully

Sales gas production of 2.8 PJ was lower than Q2 2012, due to the natural field decline at Denison. Two appraisal coreholes/pilots and seven appraisal wells were drilled in the Scotia field during the quarter and all were successfully cased and suspended.

Gunnedah

Santos continues to target the development of over 1,400 PJ of natural gas reserves in and around the Pilliga Forest near Narrabri in north west NSW. In line with this, a Narrabri focused exploration program has been designed to ascertain the commercial and technical viability of a gas development project targeting the resources in the Pilliga Forest. The proposed exploration program has been referred to the Commonwealth Government for assessment under the Environment Protection Biodiversity Conservation (EPBC) Act.

GLNG

Sales gas production of 2.7 PJ was higher than Q2 2012, with gross average daily production from the Fairview field during the quarter of 117 TJ/day.

Otway/Gippsland

Sales gas production of 4.1 PJ was 13% lower than Q2 2012, due to the impact of the deferral of the 2013 planned shutdown of the Iona gas plant from March to April. Production from the Casino hub was 3.6 PJ of sales gas and 2,500 barrels of condensate. Minerva production was 0.5 PJ of sales gas and 1,400 barrels of condensate.

During the quarter a successful offshore campaign was conducted to restore Longtom production through Patricia-Baleen, replace the Henry choke (Vic P/44) and restore electrical reliability and redundancy at Patricia-Baleen and Vic P/44. The campaign completed all objectives without a safety incident, on schedule and on budget.

Carnarvon

Gas production of 15.5 PJ was 4% lower than Q2 2012, primarily due to lower customer nominations. Condensate production of 153,800 barrels was in line with Q2 2012.

Total oil production for the quarter was 954,900 barrels, up 139% from the previous quarter due to the start-up of Fletcher Finucane in May and the return of the Mutineer-Exeter FPSO from dry dock.

First oil from Fletcher Finucane occurred on 20 May 2013, ahead of schedule and on budget. Initial gross production from Fletcher Finucane was 45,000 bbls/day, however production during June was impacted by issues with water separation systems on the FPSO. Operations have steadied since the beginning of July and the fields are currently producing at a gross daily rate of 40,000 bbls/day. Santos' share of Fletcher Finucane production for the second quarter was 437,400 barrels.

Mutineer-Exeter was brought back on line in early June subsequent to the start-up of Fletcher Finucane but a subsea communications failure required the field to be shut in during mid-June. Production is expected to be back on line by the end of August following a short program of intervention work with a remote operated vessel. Santos' share of Mutineer-Exeter production for the second quarter was 20,900 barrels.

Production from Stag was 40% higher than the previous quarter, as first quarter production was adversely affected by cyclone, workover and drilling activities. Thevenard production was also higher, with Barrow production in line with the previous quarter.

Bayu-Undan/Darwin LNG

Gross Bayu-Undan gas production of 57.3 PJ was 100% higher than Q2 2012, due to the planned 2012 shutdown in the corresponding period. Santos' net entitlement to production was 4.4 PJ. Gross Bayu-Undan condensate production of 3.9 mmbbl was 2% lower than Q2 2012. Santos' net entitlement to production was 0.26 mmbbl. Gross Bayu-Undan LPG production of 190,500 tonnes was 1% lower than Q2 2012. Santos' net entitlement to production was 14,400 tonnes.

Indonesia

Santos' net entitlement to gas production of 6.8 PJ was 13% lower than the corresponding period, with Wortel and Maleo production lower due to lower customer nominations. Combined Wortel and Oyong gross production for the quarter was 83 mmscf/day. Oyong net oil production of 24,700 barrels was lower than the previous quarter due to a lower net entitlement.

Vietnam Block 12W

Gross average oil production from Chim Sáo during the June quarter was 25,500 barrels per day. Santos' net entitlement to oil production of 699,700 barrels for the quarter was lower than Q1 2013, primarily due to ongoing power system constraints on the FPSO. Santos' share of gas production during the June quarter was 0.4 PJ.

Bangladesh

Sales gas production of 0.6 PJ was lower than Q2 2012, due to natural field decline. Production is expected to cease in the third quarter.

4. Capital expenditure

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

	Quarter ended			YTD		Full-year 2012
	Q2 2013	Q2 2012	Q1 2013	2013	2012	
Capital expenditure (\$million)						
Exploration	136	31	53	189	54	162
Evaluation	68	38	21	89	71	161
Development and other PP&E	784	718	799	1,583	1,294	2,847
Capitalised interest	37	70	64	101	86	183
Total capital expenditure	1,025	857	937	1,962	1,505	3,353

Exploration and evaluation expensed (\$million)						
From current year expenditure:						
Exploration	9	22	10	19	43	77
Evaluation	15	28	11	26	41	86
Total current year expenditure	24	50	21	45	84	163
Write-off of amounts capitalised in prior years	-	-	3	3	2	2
Total expensed	24	50	24	48	86	165

4.1 Exploration activity

Well name	Basin / area	Target	Santos %	Well status
Bassett West-1	Browse – WA	Gas	30	P&A, gas discovery
Dufresne-1	Browse – WA	Gas	30	Drilling
Bianchi-1	Carnarvon – WA	Gas	24.75	P&A, gas discovery
Winchester-1	Carnarvon – WA	Gas	75	Drilling, gas discovery
Van Der Waals-1	Cooper/Eromanga – SA	Gas	66.6	C&S, gas discovery
Moomba-192	Cooper/Eromanga – SA	Gas	66.6	C&S, gas discovery
OIG-1	South Sumatra – Indonesia	CSG	60*	C&S, successful CSG
OIG-2	South Sumatra – Indonesia	CSG	60*	C&S, successful CSG
EOM-1	South Sumatra – Indonesia	CSG	60*	Drilling

*Santos currently has a 10% interest in OIG-1 and subject to the satisfaction of certain conditions has the option to increase its interest to 60%.

The Bassett West-1 wildcat, located in WA-408-P in the Browse Basin, spudded on 17 December 2012 and reached a total depth of 5,239 metres. Wireline logging and sampling confirmed 7.5 metres of gas-condensate pay in Jurassic sandstones on the western flank of the large Bassett structure. The well was plugged and abandoned as per the drilling program and the drilling rig moved to Dufresne-1, the next well in the WA-408-P program. Dufresne-1 spudded on 27 June 2013 and is currently below 3,000 metres and drilling ahead towards a total planned depth of 5,375 metres.

The Bianchi-1 well, located in WA-49-R in the Carnarvon Basin, was spudded on 23 April 2013 and reached a total depth of 5,429 metres. Wireline logging and pressure testing confirmed 112 metres of net gas pay in the primary target Triassic Mungaroo formation. The gas column lies within a separate fault block down dip of the Zola-1 gas discovery made in April 2011. Preliminary wireline evaluation highlighted good reservoir properties in line with those observed at Zola-1. Bianchi-1 was plugged and abandoned as per the drilling program.

The Winchester-1 well, located in WA-323-P in the Carnarvon Basin, was spudded on 7 April 2013. Wireline logging and pressure testing confirmed 40 metres of net gas pay in the Jurassic Angel and Triassic Mungaroo formations between 3,614 and 3,721 metres, with excellent reservoir quality. Multiple gas samples were recovered and are being analysed. Winchester will be deepened to evaluate the gas-bearing potential of further objectives within the Mungaroo section.

The Cooper Basin unconventional gas exploration program continued with significant activity in both the basin centred gas (BCG) and the Roseneath-Epsilon-Murteree (REM) shale plays. In the BCG play, a multiple stage fracture stimulation and testing program commenced in early July on the Gaschnitz-1 vertical well, drilled earlier in 2013. The second vertical well in the exploration program, Van Der Waals-1, reached a total depth of 3,726 metres and was cased and suspended in early July. The well will be fracture stimulated and tested in the second half. The third well in the play, Langmuir-1, is expected to spud in late July.

In the REM shale play, the Moomba-192 (Aurora 1) vertical well was drilled to a total depth of 2,967 metres. The well has been successfully cased and suspended, and following evaluation of a planned fracture stimulation in a horizontal section through the REM shale play in the adjacent Moomba 193H (Aurora 2) well, Moomba-192 will be completed as a conventional well targeting the Patchawarra formation. The Moomba 193H (Aurora 2) horizontal well is planned to be drilled in the second half of 2013. This Aurora vertical-horizontal well pair is designed as follow-up to the successful 2012 Moomba 191 test.

The South Sumatra CSG drilling campaign is well-underway, with cores successfully acquired from the primary target Muara Enim formation from two wells. The OIG-1 exploration corehole was drilled to a total depth of 702 metres and was cased and suspended as a future monitoring well. The OIG-2 exploration corehole was drilled to a total depth of 830 metres, and following wireline and testing was suspended as a future monitoring well. Drilling is underway on the EOM-1 exploration well.

4.2 Seismic activity

Permit	Basin / area	Survey	Type	km / km ²	Status
ATP 653P	Arcadia – QLD	Arcadia 2D	Onshore 2D	333 km	Complete
ATP 653P/PL235/ PL236	Fairview – QLD	Clematis Creek 2D	Onshore 2D	64 km	Complete
PL 90/PL 234	Arcadia – QLD	Wamdoo 2D Phase 2	Onshore 2D	13 km	Complete
ATP 804P	Arcadia – QLD	Humboldt 2D Phase 1	Onshore 2D	18 km	Complete
WA 459P	Bonaparte – WA	Fishburn 2D	Offshore 2D	354 km	Complete

5. Development projects

Development expenditure during the second quarter of 2013 was \$784 million. The status of development projects during the second quarter is as follows.

Fletcher Finucane (Santos 44%, operator)

The Fletcher Finucane oil project is located in permit WA-191-P in the Carnarvon Basin, offshore Western Australia. Fletcher Finucane was sanctioned in January 2012 and involved the development of a three-well subsea tie-back to the existing Santos-operated FPSO facility at Mutineer-Exeter.

Oil production from Fletcher Finucane commenced in May 2013, and the project was delivered ahead of schedule and on budget. Average gross production for the initial 12 months of production is projected to be 15,000 barrels per day. For further information, refer to the ASX release of 20 May 2013.

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 São facilities. The average gross production rate is estimated to be between 8,000 and 10,000 barrels per day for the first 12 months of production.

The project is 55% complete and on track for first oil in the first half of 2014. Site integration testing and fabrication activities associated with spools, equipment and packages required to be installed on the FPSO were successfully completed. Work also continued on FPSO modifications. The West Telesto drilling rig is expected in the field in Q3 2013.

Peluang (Santos 67.5%, operator)

Sanctioned in February 2013, the Peluang gas project is located in the Maleo gas field, offshore East Java in Indonesia. It will be developed as a tie-back to the existing facilities at Maleo, and will include one horizontal gas well, a minimum facility stand-alone wellhead platform and a pipeline to the Maleo platform.

The project is 19% complete and on track for first gas in the first half of 2014, with an anticipated gross peak production of 25 mmscf/day. Fabrication of the wellhead platform and equipment skid packages is progressing well and the procurement process for long lead items has been completed.

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. PNG LNG has binding LNG sales agreements with four Asian buyers.

The overall project is approaching 90% complete and remains on track for first LNG in 2014. Construction continues to progress at the LNG plant and upstream locations and the workforce has completed over 140 million work hours to date.

The Komo airfield has been in operation since early May, and construction is progressing at the Hides Gas Conditioning Plant. The three gas turbine generators, the main low voltage switch room, the instrument air receiver, the air compressor skids and the flare knockout drum have all been received and set onto foundations. Drilling continues at Hides with two drilling rigs now in operation on four wells. The B1 well has been drilled and cased at total depth, with the tubing and tree to be installed once operations are complete on the B2 well.

Over 600 kilometres of onshore and offshore pipeline have been completed, and the LNG plant is scheduled to receive commissioning gas in the coming months from Kutubu. Construction is progressing on the remaining 80-kilometre section of onshore pipeline between Kutubu and the Hides Gas Conditioning Plant. The spinline pipeline from the Hides well pads to the Hides Gas Conditioning Plant is now under construction.

At the LNG plant site progress has continued to plan with commencement of commissioning of power generation units. Commissioning gas will enter the plant in coming months. The load-out jetty is complete as are the navigational aids for shipping. Both LNG tanks have been pneumatically tested and perlite insulation is complete on the North LNG tank and underway on the South LNG tank.

PNG LNG (Santos 13.5%, ExxonMobil operator) continued



Hides Gas Conditioning Plant, May 2013.



Hides Gas Conditioning Plant, June 2013.

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 final investment decision to the end of 2015, 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 over 60% complete and remains on track for first LNG in 2015.

Upstream

Seventy wells were spudded in the GLNG acreage during the second quarter, which included 58 development wells and 12 appraisal wells. In total, 119 wells were drilled in the first half of 2013, which included 103 development wells (41 at Fairview, 62 at Roma) and 16 appraisal wells.

As mentioned above, a rig floor incident on Saxon Rig 185 operating in the Fairview field occurred on 23 June 2013, tragically resulting in a fatality. All Queensland drilling operations were immediately stopped pending internal and external investigations. All non-Saxon rigs had resumed operations by 5 July and the Saxon rigs are expected to resume operations by the end of July.

Construction progressed at the three upstream gas hub sites, with the Fairview Hub 5 associated water amendment facility (AWAF3) reaching the pre-commissioning stage. At its peak, AWAF3 will be able to treat four mega-litres of water each day, which will be used to irrigate leucaena. Additionally, at Fairview Hub 5 two gas turbines were set on their foundations and installed along with lube oil coolers and the foundations for the hub compressor control room were completed.

At Roma Hub 2, two nodal compressors were installed along with other major equipment including lube oil coolers for three gas turbine alternators, two hub compressor units and a hub compressor intercooler. Testing commenced on the transfer sump for the 100 mega-litre pond.

At Fairview Hub 4, all nodal compressors and coolers were placed on foundations. The control room sites for the hub compressor station and nodal compressor station were backfilled and steel erection of a warehouse was completed, while an oxidation tank and essential services generator were installed. All mechanical equipment was set in the desalination area and a wall embankment for the 200 mega-litre pond was completed.

Gas transmission pipeline

Construction of the 420-kilometre gas transmission pipeline is well underway, with 300 kilometres of the mainland pipeline right-of-way cleared and graded, over 260 kilometres strung and 55% of the total pipeline length welded out. Over 130 kilometres of the pipeline has now been buried, with rehabilitation complete on 80 kilometres of the pipeline route. Tunnelling works on the marine crossing commenced on 15 April and continues to progress ahead of schedule, with 1.6 kilometres of the 4.2-kilometre tunnel complete as at mid-July.

In early July, GLNG and QGC reached an agreement to interconnect both projects' major pipelines to support plant operation flexibility and efficiency for the life of both projects. The construction of the interconnection will enable gas to flow from one project to the other, allowing both projects to buy, sell and swap gas at these points. In addition, the interconnection will provide the opportunity for coverage of operations during respective scheduled and unscheduled downtime and maintenance events. Construction of the interconnection is expected to be completed in 2014.

LNG plant

A significant milestone was achieved during the quarter, with the successful raising of the LNG Tank B roof and its suspended deck in late June. The eighth outer concrete wall lift was completed on LNG Tank A and works commenced on its suspended deck.

The first four Train 1 modules have been installed, and the second shipment of six piperack modules has been received at site. The Train 1 compressor control building, main substation and propane substation have been set on foundations and the Train 1 solvent regenerator and dry gas flare knock-out drum were also installed. The Train 2 absorber column, mercury removal beds, and methane and ethylene cold boxes were set in place. Also, the methane and ethylene compressor deck columns were poured and the third tier of the main flare derrick structure was completed.

GLNG project (Santos 30%, operator) continued

At the LNG jetty, all trestle bents have been completed and piling commenced on the mooring dolphins and berthing dolphins. All loading platform piles have been driven and cut to height and 21 of 23 pre-cast beams have been set into position.

At the module yard in Batangas, 58 of the Train 1 modules are under assembly and another 14 modules are in the final stages of completion. Assembly has commenced on seven of the 29 Train 2 modules.



LNG plant site on Curtis Island, June 2013.



Roof raised at LNG Tank B on Curtis Island, June 2013.

7. Drilling summary

7.1 Appraisal/evaluation wells

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

Well name	Basin / area	Target	Santos %	Well status
Affogato-1	Cooper/ Eromanga - SA	Oil	100	C&S, successful oil
Chorizo-1	Cooper/ Eromanga - SA	Oil	100	C&S, successful oil
Chivito-1	Cooper/ Eromanga - SA	Oil	100	P&A
Hoff-1	Cooper/ Eromanga - SA	Oil	100	P&A
Charo-19	Cooper/ Eromanga - SA	Oil	67	C&S, successful oil
Cuisinier-8	Cooper/ Eromanga - QLD	Oil	45	C&S, successful oil
Cuisinier-9	Cooper/ Eromanga - QLD	Oil	45	C&S, successful oil
Cuisinier-10	Cooper/ Eromanga - QLD	Oil	45	C&S, successful oil
Cuisinier-11	Cooper/ Eromanga - QLD	Oil	45	C&S, successful oil
Cook-24	Cooper/ Eromanga - QLD	Oil	55	Drilling
Checkers-2	Denison - QLD	CSG corehole	30	P&A
Lonesome-2	Fairview - QLD	CSG	23.85	C&S, successful CSG
Lonesome-3	Fairview - QLD	CSG	23.85	C&S, successful CSG
Lilyvale-4	Roma - QLD	CSG	24.57	Drilling
Scotia-45	Scotia - QLD	CSG corehole	30	C&S, successful CSG
Annabi South-1	Scotia - QLD	CSG corehole	30	C&S, successful CSG
Moonamarra-2	Scotia - QLD	CSG	30	C&S, successful CSG
Moonamarra-3	Scotia - QLD	CSG	30	C&S, successful CSG
Moonamarra-4	Scotia - QLD	CSG	30	C&S, successful CSG
Moonamarra-5	Scotia - QLD	CSG	30	C&S, successful CSG
Craiglea-1	Scotia - QLD	CSG	30	C&S, successful CSG
Balgownie-2	Scotia - QLD	CSG	30	C&S, successful CSG
Avalon-2	Scotia - QLD	CSG	30	C&S, successful CSG

7.2 Development wells

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

Well name	Basin / area	Target	Santos %	Well status
Cowralli-14	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-15	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-16	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-22*	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-23	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-24	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-25	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-26	Cooper/ Eromanga - SA	Gas	66.6	C&S, successful gas
Cowralli-27	Cooper/ Eromanga - SA	Gas	66.6	Drilling
Psyche-7	Cooper/ Eromanga - QLD	Gas	60.06	C&S, successful gas
Juno-6	Cooper/ Eromanga - QLD	Gas	60.06	C&S, successful gas
Karmona-6	Cooper/ Eromanga - QLD	Gas	60.06	C&S, successful gas
Lepard-2*	Cooper/ Eromanga - QLD	Oil	60	C&S, successful oil
Cook-26	Cooper/ Eromanga - QLD	Oil	55	C&S, successful oil
Stag 48H*#	Carnarvon – WA	Oil	66.67	C&C, successful oil

Well name	Basin/ area	Target	Santos %	Well status
Hides B1 ^{#*}	Papuan - PNG	Gas	13.50	Drilling
Hides B2 ^{#*}	Papuan - PNG	Gas	13.50	Drilling
Hides C2 [#]	Papuan - PNG	Gas	13.50	Drilling
Hides C1 [#]	Papuan - PNG	Gas	13.50	Drilling
FV11-06-1	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV11-06-2	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV11-06-3	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV11-17-1	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV11-17 2DW1 [*]	Fairview - QLD	CSG	24.85	P&A
FV11-31-4 [*]	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV11-31-5	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV12-02-1	Fairview - QLD	CSG	23.85	Drilling
FV12-03-1	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV12-03-2	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV12-03-3	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV12-08-1	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV12-12-2	Fairview - QLD	CSG	23.85	Drilling
FV12-12-3	Fairview - QLD	CSG	23.85	C&C, successful CSG
FV12-16 3 [*]	Fairview - QLD	CSG	23.85	C&C, successful CSG
FV12-18-1	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV12-18-2	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV12-18-3	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV12-18-4	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV13-14-9	Fairview - QLD	CSG	23.85	Drilling
FV13-14-10	Fairview - QLD	CSG	23.85	Suspended for further deepening
FV15-13-1	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV15-16-1	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV17-19-1	Fairview - QLD	CSG	23.85	C&S, successful CSG
FV17-19-2	Fairview - QLD	CSG	23.85	C&S, successful CSG
RM02-29-1	Roma - QLD	CSG	30	C&S, successful CSG
RM02-29-2	Roma - QLD	CSG	30	C&S, successful CSG
RM02-30-1	Roma - QLD	CSG	30	C&S, successful CSG
RM02-30-2	Roma - QLD	CSG	30	C&S, successful CSG
RM02-30-3	Roma - QLD	CSG	30	C&S, successful CSG
RM02-33-1	Roma - QLD	CSG	30	C&S, successful CSG
RM02-33-2	Roma - QLD	CSG	30	C&S, successful CSG
RM02-33-3ST1	Roma - QLD	CSG	30	C&S, successful CSG
RM02-37-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-16-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-23-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-29-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-30-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-33-1	Roma - QLD	CSG	30	C&S, successful CSG

Well name	Basin / area	Target	Santos %	Well status
RM03-34-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-40-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-41-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-46-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-47-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-51-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-57-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-60-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-67-1	Roma - QLD	CSG	30	C&S, successful CSG
RM03-70-1	Roma - QLD	CSG	30	Drilling
RM03-73-1	Roma - QLD	CSG	30	C&S, successful CSG
RM07-14-1	Roma - QLD	CSG	30	C&S, successful CSG
RM07-14-2	Roma - QLD	CSG	30	C&S, successful CSG
RM07-22-2	Roma - QLD	CSG	30	C&S, successful CSG
RM07-23-2A*	Roma - QLD	CSG	30	C&S, successful CSG
RM08-13-1	Roma - QLD	CSG	30	C&S, successful CSG
RM08-13-2	Roma - QLD	CSG	30	C&S, successful CSG
RM08-13-3	Roma - QLD	CSG	30	C&S, successful CSG
RM08-13-4	Roma - QLD	CSG	30	C&S, successful CSG
RM12-12-1	Roma - QLD	CSG	30	C&S, successful CSG
RM12-12-2	Roma - QLD	CSG	30	C&S, successful CSG
RM12-12-3	Roma - QLD	CSG	30	C&S, successful CSG
RM12-12-4	Roma - QLD	CSG	30	C&S, successful CSG

* Spudded during first quarter 2013

* Spudded during third quarter 2012

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 ³
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		
P&S	plugged and suspended		
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		