Santos Ltd ABN 80 007 550 923 Ground Floor, Santos Centre 60 Flinders Street Adelaide South Australia 5000

GPO Box 2455 Adelaide South Australia 5001

Direct: + 61 8 8116 5000 Facsimile: + 61 8 8116 6723



SUBJECT:	2013 CLSA Investors' Forum Presentation
DATE:	25 September 2013
FROM:	Company Secretary
TO:	ASX Market Announcements ASX Limited

Please find attached Santos' CLSA Presentation being presented by Andrew Seaton (CFO) at the CLSA Investor's Forum in Hong Kong today.

David Lim Company Secretary



## **CLSA Investors' Forum**

Hong Kong, September 2013



We have the energy.

## **Disclaimer & important notice**

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This presentation contains forward looking statements that are subject to risk factors associated with the oil and gas industry. It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, geotechnical factors, drilling and production results, gas commercialisation, development progress, operating results, engineering estimates, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial markets conditions in various countries, approvals and cost estimates.

All references to dollars, cents or \$ in this document are to Australian currency, unless otherwise stated. All references to project completion percentages are on a value of work done basis, unless otherwise stated.

The reserves and contingent resources information in this presentation has been compiled by Greg Horton, a full-time employee of the company. Greg Horton is qualified in accordance with ASX Listing Rule 5.11 and has consented to the form and context in which this information appears. Santos prepares its reserves and contingent resources estimates in accordance with the definitions and guidelines set forth in the 2007 Petroleum Resources Management System (PRMS) prepared by the Society of Petroleum Engineers (SPE).



#### Santos – A leading energy company in Australia and Asia

- Australia's largest domestic gas producer
- 2012 production 142,000 boe/d (75% gas/25% liquids)
- Top-20 Australian Securities Exchange listed company
- Market capitalisation US\$15 billion (Sept 2013)

#### Key statistics (as at December 2012)

Proved reserves	663 mmboe
Proved & probable reserves	1,406 mmboe
Contingent resources	1,965 mmboe
2012 production	52.1 mmboe
2012 proved & probable reserve replacement ratio	180%

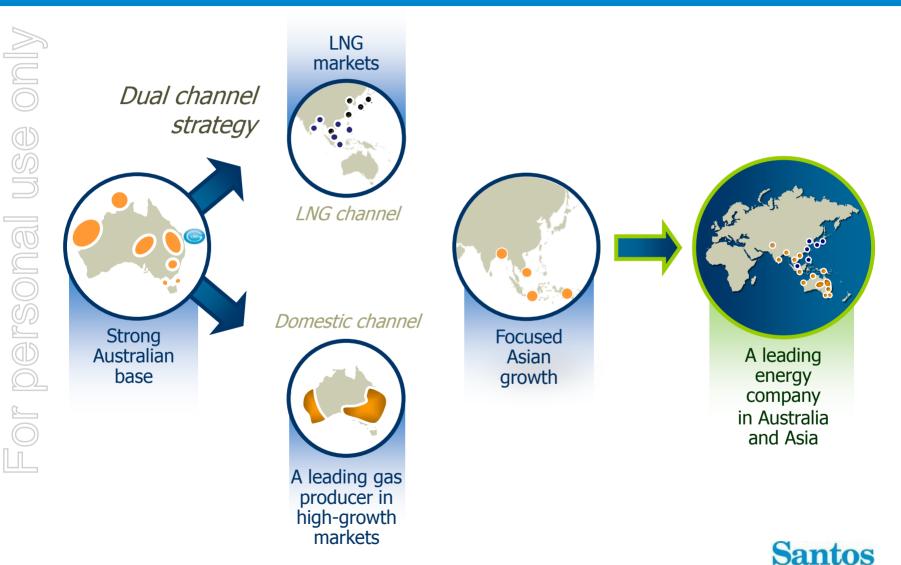




boe/d: barrels of oil equivalent per day mmboe: million barrels of oil equivalent

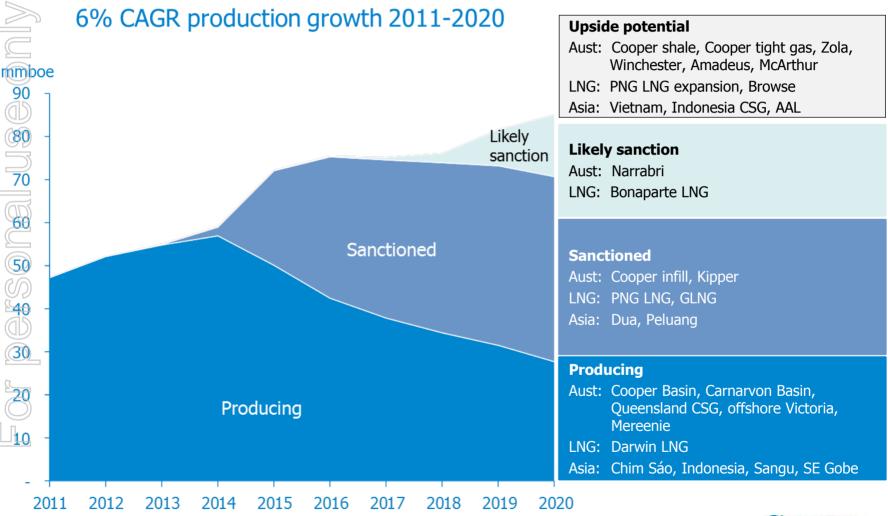
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## Santos vision and strategy



We have the energy.

#### Delivering 80-90 mmboe of production by 2020



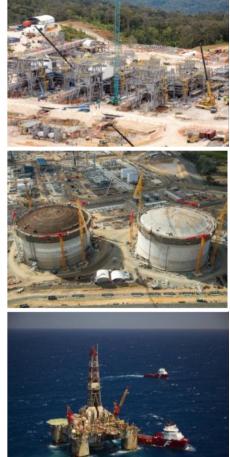


# Santos portfolio transformation becoming a reality

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**Production** growth Margin growth Capital management

- Clear growth outlook to 2016 and beyond
- 2H 2013 Fletcher Finucane, Cooper infill
- 2014 Dua, Peluang, PNG LNG
- 2015 GLNG
- Revenues increasingly oil price linked
- Clear evidence of rising domestic gas prices
- Benefits of falling Australian dollar
- Robust funding position provides the capacity to fund execution of strategy
- Committed to increasing returns to shareholders
- Intent to review capital management options as PNG LNG production approaches



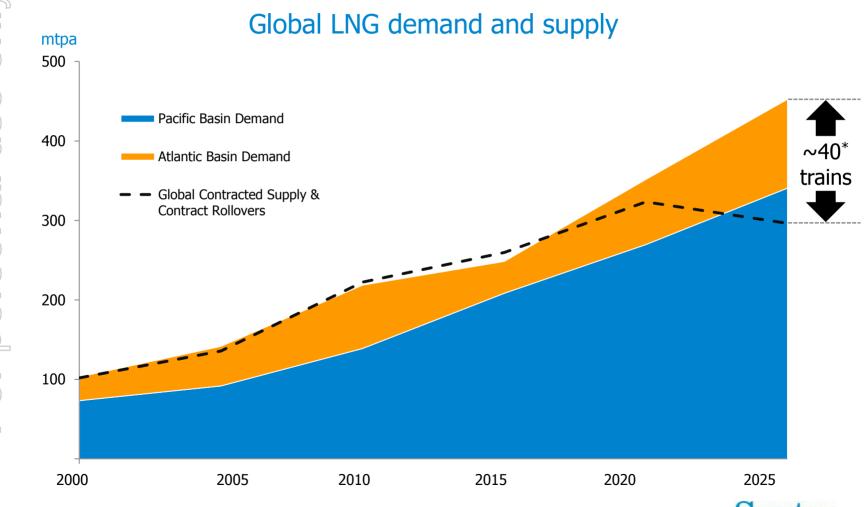






#### Building a transformational LNG portfolio

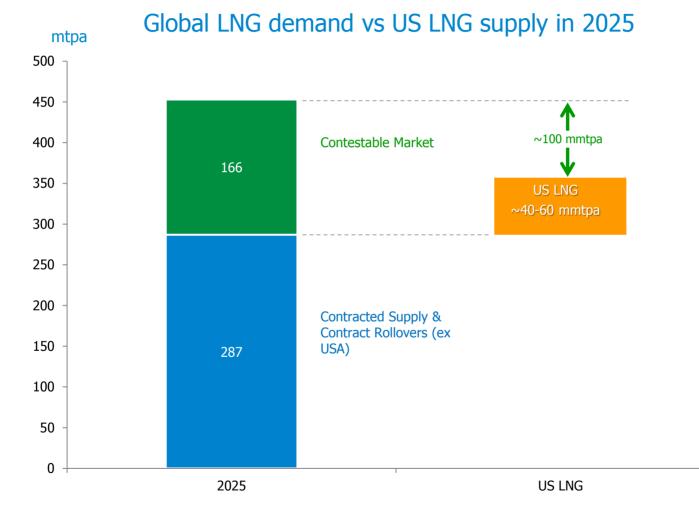
# New sources of supply will be required to meet robust global demand for LNG



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Source: Santos interpretation of Wood Mackenzie data (May 2013). \* Assuming: one LNG train nominal capacity of 4 mtpa

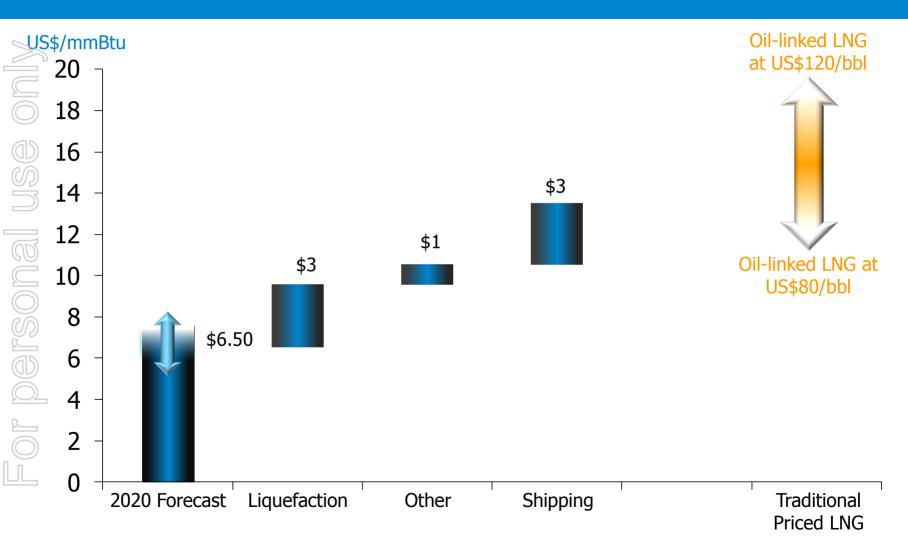
# US LNG exports are not expected to overwhelm the market



Source: Wood Mackenzie, Contracted Supply & Contract rollovers are for Operational and Under Construction plants, includes SPAs, MOUs, and HOAs



#### LNG Pricing: Henry Hub-linkage vs oil-linkage



Source: Henry Hub 2020 forecast provided by PIRA; "Other" includes Pipeline & Fuel; Contracted Asian LNG demand from Wood Mackenzie

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## Santos' unique LNG Portfolio

Darwin LNG (Santos 11.5%) Production since 2006 Operator: ConocoPhillips



#### GLNG (Santos 30%) First LNG expected in 2015 Operator: Santos



PNG LNG (Santos 13.5%) First LNG expected in 2H 2014

**Operator:** ExxonMobil



#### Bonaparte LNG (Santos 40%) Proposed floating LNG Operator: GDF Suez



#### Santos' LNG projects are fully contracted with major Asian buyers at oil-linked prices

PNG LNG

2034







LNG.

Fuel for the Future

**GLNG** 

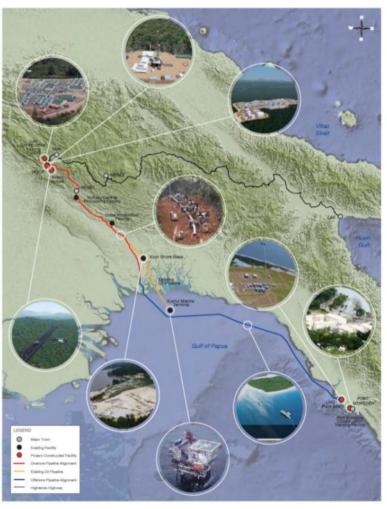
Contracted to

2035



# PNG LNG is over 90% complete and on track for first LNG in 2H 2014

Project	PNG LNG
Location	Papua New Guinea
Project participants	Santos 13.5%, ExxonMobil 33.2% and operator, Oil Search, Nippon Oil, State of PNG
Project scope	<ul> <li>Upstream gas &amp; condensate fields</li> <li>Gas transmission pipeline</li> <li>2-train LNG plant</li> </ul>
(UNG plant Capacity	6.9 mtpa; sold to CPC (1.2 mtpa), Osaka Gas (1.5 mtpa), Sinopec (2.1 mtpa), TEPCO (1.8 mtpa)
Gross capital	US\$19 billion
Recent	<ul> <li>Construction of Hides Gas Conditioning Plant progressing; all Antonov cargo flights are complete</li> <li>Commissioning gas sent from Kutubu to the LNG plant</li> <li>Drilling of the first four wells is underway</li> </ul>
First LNG	Project is over 90% complete and on schedule for first LNG in 2H 2014





#### Construction at Hides is progressing to plan



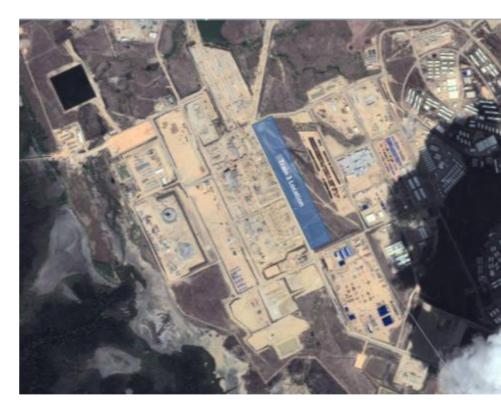
# Commissioning underway at the PNG LNG plant

LNG plant site, Caution Bay

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## **PNG LNG expansion**

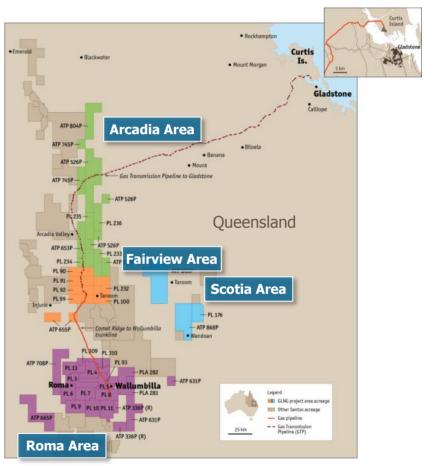
- Potential areas for expansion are being assessed
  - Hides development drilling underway
- Plans are being developed to drill Hides Deep in 2015 (Santos 24% equity)
  - Optimal access to project infrastructure





# GLNG is over 60% complete and on track for first LNG in 2015

	Project	GLNG		
	Location	Queensland, Australia		
	Project participants	Santos 30% and operator, PETRONAS, Total and KOGAS		
	Project scope	<ul> <li>Upstream gas fields</li> <li>420-km pipeline</li> <li>2-train LNG plant</li> </ul>		
R	LNG plant capacity	7.8 mtpa of LNG; 7.2 mtpa has been sold to PETRONAS and KOGAS		
	Gross capital cost estimate	<ul> <li>US\$18.5 billion<sup>1</sup> from FID to end 2015</li> </ul>		
	Recent milestones	<ul> <li>119 wells spudded in the first half; on track to drill over 200 wells in 2013</li> <li>Pipeline interconnection agreement signed with BG</li> <li>Marine crossing tunnel ahead of schedule and over 50% complete</li> <li>Both LNG tank roof lifts completed</li> </ul>		
	First LNG	Over 60% complete and on schedule for 2015		



 $^1$ Based on foreign exchange rates which are consistent with the assumptions used at FID (A\$/US\$ 0.87 average over 2011-15)



## GLNG - CSG drilling

- <u>on</u>ly D S D OF DEFSONAL
- Nine drilling rigs and four completion rigs
- Drilled 119 wells in the first half of 2013, on target to drill over 200 wells by year end
- Average 2013 drilling and completion costs of \$1.4 million per development well
  - Average drilling cost of \$1.1 million
  - Average completion cost of \$0.3 million
- Fairview average optimum gas capacity per well of 1.6 TJ/day
- Roma pilot data confirming individual well potential capacity of 0.5 TJ/day





### **GLNG - Upstream construction**



Fairview Hub 4

#### GLNG – Gas transmission pipeline on track for completion in 2Q 2014

- Construction of 420-kilometre pipeline well underway
  - All private landholder approvals have been obtained
  - Clearing and grading over 90% complete
  - Stringing is over 80% complete
  - Over 70% of the total pipeline length has been welded
  - Over 50% of the pipeline has been buried
- Tunnelling works on the marine crossing continue to progress ahead of schedule; over 50% complete
- Agreement signed with QGC to interconnect both projects' pipelines
  - Allows for gas to flow from one project to the other, enabling projects to buy, sell or swap gas







#### GLNG – significant downstream progress



LNG Train 1

Unloading at the MOF

# Darwin LNG/Bayu-Undan – continued strong production and cashflow

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- Santos 11.5%, ConocoPhilips operator
- Capacity 3.7mpta, LNG production since 2006
- Track record of reliable delivery (more than 350 cargoes)
- Land available for Darwin LNG expansion, government approval in place for up to 10 mtpa
- Planning for Phase 3 offshore drilling program underway
- Potential development pathway for Caldita
   Barossa gas



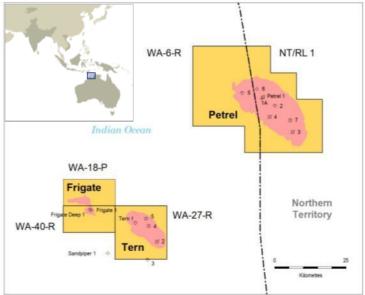
DLNG site at Darwin and expansion potential



#### Bonaparte LNG – proposed floating LNG

- Santos (40%) and GDF SUEZ (60%, Operator)
- Development of Petrel, Tern and Frigate fields located 250km west of Darwin in the Timor Sea
- Floating LNG technology, producing
   2.4 mtpa
- Federal Government Environmental Approval received in October 2012
- Currently in competitive Concept Definition
  - Technip and KBR awarded contracts to complete independent designs of the FLNG
- Targeting FEED entry early 2014



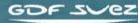




# BLNG – targeting a final investment decision in 2015



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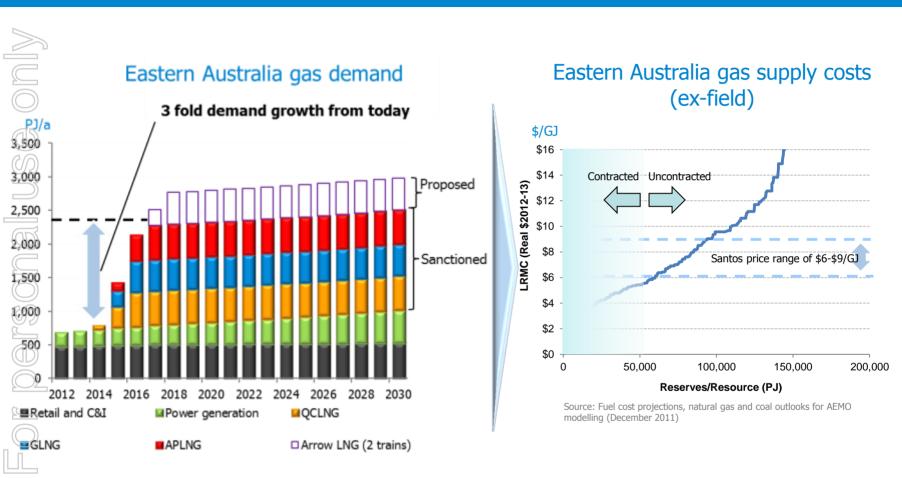
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## Leading Australian domestic producer

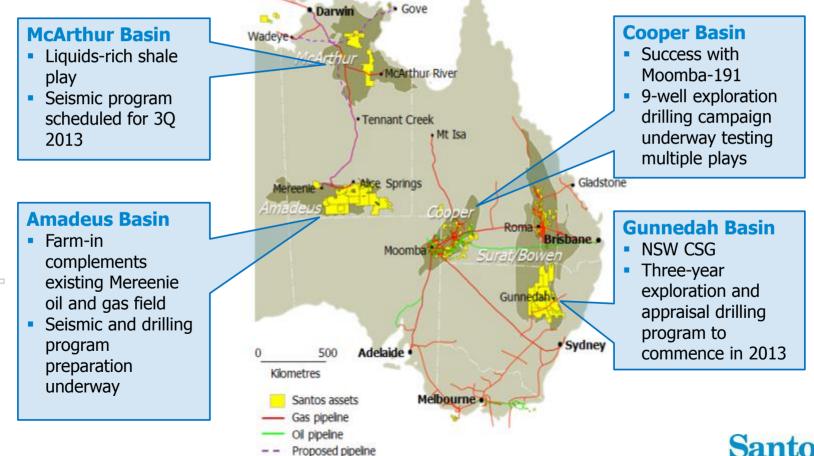
Unprecedented growth in Eastern Australia gas market is increasing gas prices and unlocking more resources





## Unconventional acreage footprint

Since 2009 Santos has increased its unconventional acreage footprint onshore Australia four-fold to 231,000km<sup>2</sup> (57m acres)



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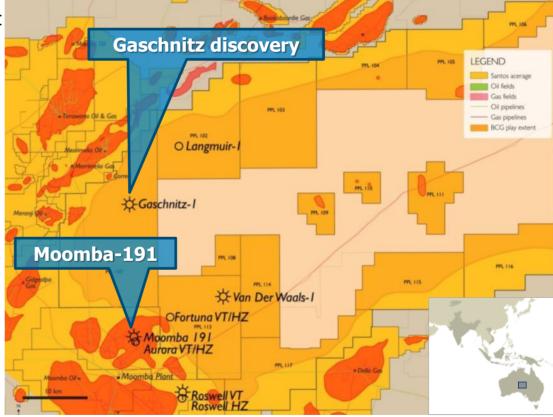
#### **Cooper unconventional**

#### REM shale play

- Moomba-191 currently flowing at 2 mmscf/day
- Three follow-up vertical/horizontal pairs to further appraise the play

#### Basin Centred Gas play

- Gaschnitz-1 well confirmed a continuous gas accumulation in the Nappamerri Trough
- Initial post frac clean-up flows of >1 mmscf/day
- Van der Waals-1 also confirmed gas outside of closure
- A third well, Langmuir-1 is currently drilling to further appraise the extent of the Basin Centred Gas accumulation play





# Fletcher Finucane project has already produced over 1.5 million barrels of oil since 20 May 2013

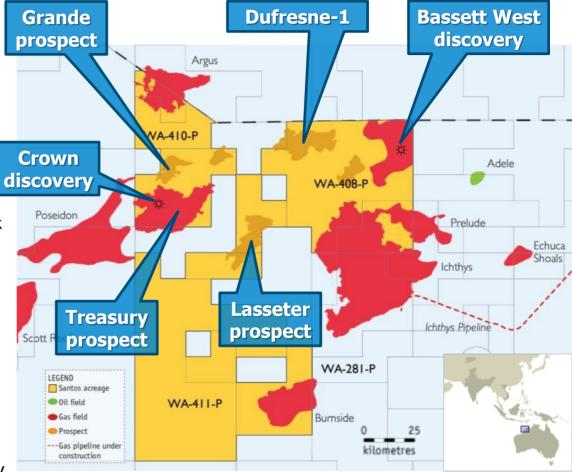
- First oil delivered ahead of schedule and only 16 months after the project was sanctioned
- Final cost of \$470 million, 4% under budget
- Forecast average gross production rate of 15,000 bbl/day in the first 12 months
- Rig secured to drill adjacent
   Vanuatu prospect
  - If successful, could tie-back to existing subsea facilities





#### Browse Basin – Crown and Bassett West successes unlock material play; Dufresne drilling ahead

- Crown gas-condensate discovery (Santos 30%)
  - 61 metres net gas pay in Jurassic-aged Montara, Plover and Malita sandstones
- Bassett West discovery (Santos 30%)
  - 7.5 metres gas pay in Jurassic sandstones on the western flank of the large Bassett structure
- Dufresne-1 (Santos 30%) drilling ahead
  - Targeting Jurassic aged gas, analogous to Crown and Bassett West
- Material follow-up opportunities across acreage
- Planning for appraisal of discovered resource underway





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# Carnarvon Basin - Winchester and Bianchi discoveries adjacent to key infrastructure

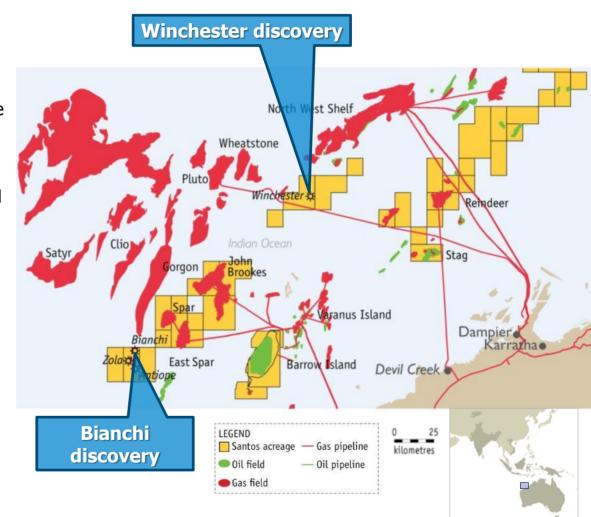
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#### Winchester gas discovery

- Santos 75% and operator
- 58 metres of net gas pay in the Jurassic Angel and Triassic Mungaroo formations with excellent reservoir quality
- Multiple gas samples recovered
- Unlocking exploration potential throughout WA-323-P and WA-330-P

#### Bianchi gas discovery

- Santos 24.75%
- 112 metres of net stacked gas pay in Triassic formations
- Adding materiality to existing discoveries on block, including Zola
- Multiple follow-up prospects undrilled
- On trend to Gorgon, Clio, and Satyr

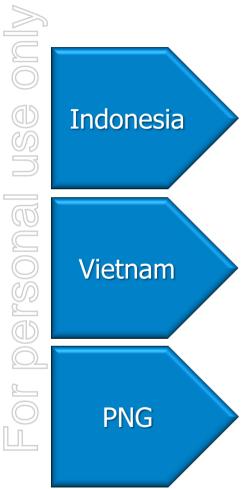






## Focused growth in Asia

# Focus on three core countries; Indonesia, Vietnam and PNG



- Three offshore assets in East Java Sea, comprising 10% of Santos' 2012 production
- Peluang gas project over 20% complete; on track for first gas in 1H 2014
- Acquisition of a 50% interest and operatorship in Ande Ande Lumut oil field
- Chim Sáo producing > 25,000 bbls/day
- Dua oil project over 50% complete; on track for first oil in 1H 2014
- Hon Khoai exploration well in Nam Con Son Basin targeted for late-2013
- PNG LNG over 90% complete and on track for first LNG in 2H 2014
- Potential for expansion trains on existing site









## Dua is over 55% complete and on track for first oil in first half of 2014

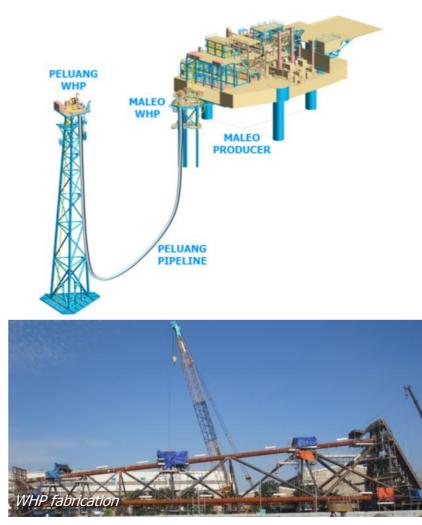
- -or personal use only
- Santos 31.875%, Premier Oil operator
- Located 17km north-east of Chim Sáo
- Three-well subsea tie-back to Chim Sáo FPSO
- Fabrication of equipment packages to be installed on the FPSO complete
- Development drilling to commence early Q4 2013
- Forecast average gross production rate of 8,000 bbl/day in the first 12 months
- Gross capital cost estimate US\$307 million



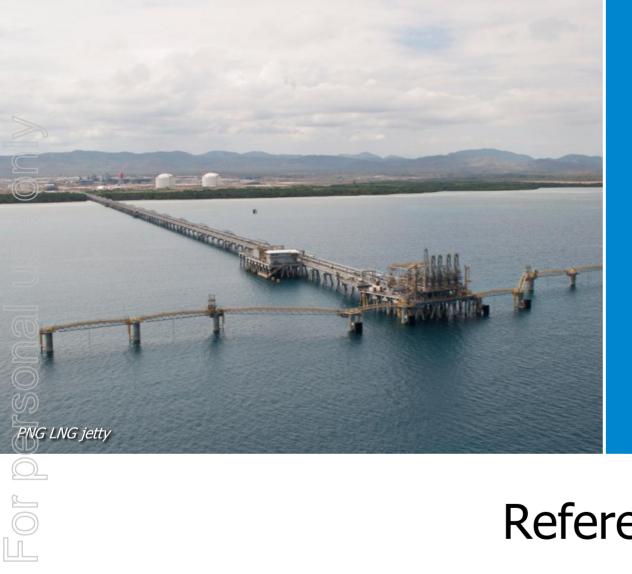


## Peluang is 22% complete and on track for first gas in first half of 2014

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- Santos 67.5% and operator
- Located in the Maleo gas field, offshore East Java in Indonesia
- One-well tieback to the existing facilities at Maleo
- Procurement for long-lead items has been completed
- Fabrication of the wellhead platform and equipment skid packages is progressing
- Forecast gross peak production rate of 25 mmscf/day
- Gross capital cost estimate US\$100 million









## **Reference slides**

#### First half net profit up 3%

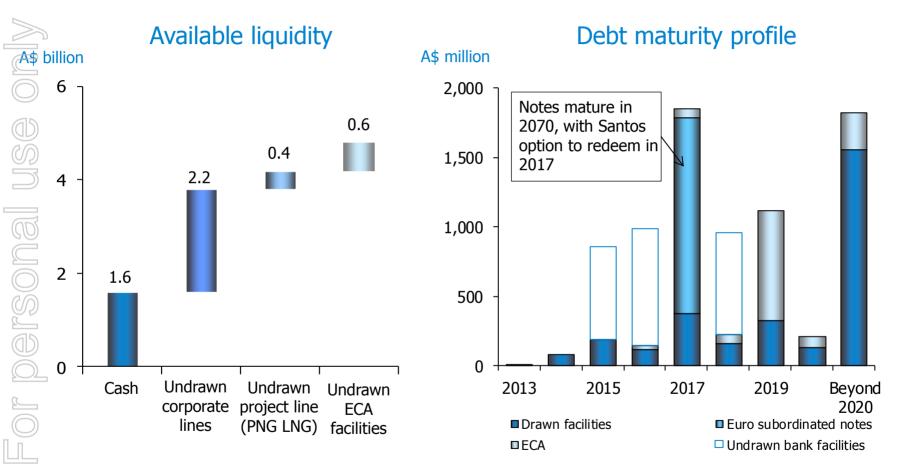
#### 2013 Half-year result

#### Change on 2012 first half

Production	24.5 mmboe	-4%
Sales revenue	\$1,510 million	1%
EBITDAX	\$844 million	-4%
Net profit after tax	\$271 million	3%
Underlying net profit	\$251 million	-11%
Operating cashflow	\$629 million	-13%
Interim dividend	15 cents per share	-



# \$4.8 billion of liquidity provides the capacity to fund the execution of our strategy



Charts as at 30 June 2013



#### 2013 guidance

Item	2013 guidance	
Production (mmboe)	52-55	
Production costs (\$million) <sup>1</sup>	670-690	
DD&A expense (\$/boe)	16.50	
Royalty related taxation expense <sup>2</sup> (\$million after tax)	50	
Capital expenditure (including exploration & evaluation) <sup>3</sup>	\$4 billion	

<sup>1</sup> Including the impact AASB 11 on production costs, estimated at \$30 million per annum

<sup>2</sup> Royalty related taxation expense guidance based on an average realised oil price of A\$100 per barrel

<sup>3</sup> Capital expenditure guidance excludes capitalised interest, which is forecast at approximately \$220 million in 2013



#### 2013 exploration schedule

Well name	Basin / area	Target	Santos Interest %	Timing / result
Bassett West-1	Browse	Gas	30	Gas discovery
Bianchi-1	Carnarvon	Gas	24.75	Gas discovery
Winchester-1	Carnarvon	Gas	75	Gas discovery
Dufresne-1	Browse	Gas	30	Drilling
Cooper unconventional	Cooper	Gas	66.6	Q1 – Q4
Indonesia CSG	South Sumatra	CSG	60	Q2 – Q4
Mereenie unconventional cores	Amadeus	Gas	100	Q3
Queensland CSG	Denison	CSG	50	Q3 – Q4
Cooper NFE	Cooper	Gas	Various	Q3 – Q4
Hen Khoai-1	Nam Con Son	Oil	65	Q4
NSW CSG	Gunnedah	CSG	Various	Q4

The exploration portfolio is continuously being optimised, therefore the above program may vary as a result of farmout, rig availability, drilling outcomes and maturation of new prospects



## **Contact information**

#### Head office Adelaide

Ground Floor, Santos Centre 60 Flinders Street Adelaide, South Australia 5000 GPO Box 2455 Adelaide, South Australia 5001 Telephone: +61 8 8116 5000 Facsimile: +61 8 8116 5050

#### **Useful email contacts**

Share register enquiries: web.gueries@computershare.com.au

Investor enquiries: investor.relations@santos.com

#### **Andrew Nairn**

Group Executive Investor Relations Level 10, Santos Centre Direct: + 61 8 8116 5314 Email: <u>andrew.nairn@santos.com</u>

Nicole Walker Investor Relations Manager Level 10, Santos Centre Direct: + 61 8 8116 5302 Email: <u>nicole.walker@santos.com</u>

Website: www.santos.com

