

8 February 2022

Santos announces booking of CO2 storage capacity

Santos today announced a booking of 100 million tonnes of CO2 storage resource in the Cooper Basin in South Australia.

This represents a subset of the total prospective storage resource in the Cooper Basin and follows the final investment decision on the 1.7 million tonne per annum Moomba carbon capture and storage (CCS) project in November 2021.

Santos believes this is the first booking in the world in accordance with the CO2 Storage Resource Management System (SRMS) sponsored by the Society of Petroleum Engineers.

Santos Managing Director and Chief Executive Officer Kevin Gallagher said today's announcement of storage capacity in the Cooper Basin is a significant step in Santos' decarbonisation pathway and carbon storage hub strategy.

"CCS is a critical technology to achieve the world's emission reduction goals and we only have to look at current carbon prices to see how valuable 100 million tonnes of storage is," Mr Gallagher said.

"Santos sees CO2 storage capacity as a strategic competitive advantage in evolving cleaner energy, clean fuels and carbon markets. This globally significant carbon storage capacity booking is another tangible example of Santos leading the way in establishing the foundations to support the energy transition."

The announcement forms part of the release of Santos' Annual Reserves Statement. Proved plus probable (2P) reserves increased by 80 per cent to 1,676 million barrels of oil equivalent (mmboe) at the end of 2021, primarily due to the final investment decision on the Barossa project and the Oil Search merger.

Key highlights:

- 907 per cent one-year 2P reserves replacement
- 355 per cent three-year 2P reserves replacement
- 187 per cent three-year organic 2P reserves replacement
- 2P reserves were added in 2021 from Barossa FID (373 mmboe) and the Oil Search merger (416 mmboe)
- 149 per cent GLNG 2P reserves replacement in 2021
- 2C contingent resources increased by 41 per cent to 3,219 mmboe

2P reserves increased by 835 mmboe before production in 2021. The annual 2P reserves replacement was 907 per cent and the three-year replacement 355 per cent.

"Today's statement is the result of Santos' disciplined annual reserves process, which include external audit of approximately 94 per cent of total 2P reserves," Mr Gallagher said.



The merger with Oil Search added 416 mmboe of 2P reserves while the final investment decision on Barossa added a further 373 mmboe. Santos has booked Barossa reserves at a 50 per cent interest following the execution of a binding Sale and Purchase Agreement to sell a 12.5 per cent stake in Barossa to JERA, completion of which is expected in the first half of 2022.

Consistent application of Santos' disciplined operating model also delivered reserves increases in the onshore assets in 2021. GLNG achieved greater than 100 per cent 2P reserves replacement for the second year in a row, while reserves were also added in the Cooper Basin before production.

2C contingent resources increased by 41 per cent to 3,219 mmboe, primarily due to the Oil Search merger partially offset by the commercialisation of Barossa 2C resources to reserves at FID.

The Oil Search merger added 819 mmboe 2C in Papua New Guinea and 401 mmboe in Alaska. The gross 2C contingent resource in Alaska is unchanged from that previously reported by Oil Search, but in accordance with the 2018 Petroleum Resources Management System (PRMS), Santos has adjusted its net share Alaska 2C resource to remove royalties.

Ends.

Attachment: 2021 Annual Reserves Statement

This ASX announcement was approved and authorised for release by Kevin Gallagher, Managing Director and Chief Executive Officer.

for the year ended 31 December 2021

RESERVES AND RESOURCES

Proved plus probable (2P) reserves increased by 835 million barrels of oil equivalent (mmboe) before production in 2021. The annual 2P reserves replacement ratio (RRR) was 907 per cent and the three-year RRR 355 per cent.

The merger with Oil Search added 416 mmboe of 2P reserves while the final investment decision on Barossa added a further 373 mmboe. Santos has booked Barossa reserves at a 50 per cent working interest following the execution of a binding Sale and Purchase Agreement to sell a 12.5 per cent interest in Barossa to JERA, completion of which is expected in the first half of 2022.

Consistent application of Santos' disciplined operating model also delivered reserves increases in the onshore assets in 2021. GLNG achieved greater than 100 per cent 2P reserves replacement for the second year in a row, while reserves were also added in the Cooper Basin before production.

2C contingent resources increased by 41 per cent to 3,219 mmboe at the end of 2021, primarily due to the Oil Search merger partially offset by the commercialisation of Barossa 2C resources to reserves at FID.

The Oil Search merger added 819 mmboe 2C in Papua New Guinea and 401 mmboe in Alaska. The gross 2C contingent resource in Alaska is unchanged from that previously reported by Oil Search, but in accordance with the 2018 Petroleum Resources Management System (PRMS), Santos has adjusted its net share Alaska 2C resource to remove royalties.

An initial booking of 100 million tonnes of 2P plus 2C CO2 storage capacity was made in the Cooper Basin in accordance with the CO2 Storage Resource Management System (SRMS) sponsored by the Society of Petroleum Engineers.

This booking represents a subset of the total prospective storage resource in the Cooper Basin and follows FID on the Moomba carbon capture and storage project in 2021.

RESERVES AND 2C CONTINGENT RESOURCES (SANTOS SHARE AS AT 31 DECEMBER)

Santos share	Unit	2021	2020	% change
Proved reserves	mmboe	1,009	496	103%
Proved plus probable reserves	mmboe	1,676	933	80%
2C contingent resources	mmboe	3,219	2,282	41%

RESERVES AND 2C CONTINGENT RESOURCES BY PRODUCT (SANTOS SHARE AS AT 31 DECEMBER 2021)

	Sales gas	Crude oil	Condensate	LPG	Total
Santos share	PJ	mmbbl	mmbbl	000 tonnes	mmboe
Proved reserves	5,436	32	41	442	1,009
Proved plus probable reserves	8,967	59	71	1,046	1,676
2C contingent resources	14,469	560	152	3,440	3,219

KEY METRICS

Annual proved reserves replacement ratio	656%
Annual proved plus probable reserves replacement ratio	907%
Three-year proved plus probable reserves replacement ratio	355%
Organic annual proved plus probable reserves replacement ratio	464%
Organic three-year proved plus probable reserves replacement ratio	187%
Developed proved plus probable reserves as a proportion of total reserves	45%
Reserves life ¹	18 years
Reserves life ²	14 years

- 1 2P reserves life as at 31 December 2021 using Santos' 2021 production.
- $2\quad \text{2P reserves life as at 31 December 2021 using pro-forma Santos and Oil Search 2021 production}.$
- 1/Santos Reserves Statement 2021

for the year ended 31 December 2021 continued

PROVED RESERVES

Santos share as at 31 December 2021

						All products	
_	Sales gas	Crude oil	Condensate	LPG _		mmboe	
Asset	PJ	mmbbl	mmbbl	000 tonnes	Developed	Undeveloped	Total
Cooper Basin	237	8	3	419	44	12	56
Queensland & NSW ¹	988	-	-	-	115	55	170
PNG	2,371	11	19	-	272	164	436
Northern Australia							
& Timor-Leste	1,278	-	13	23	2	230	232
Western Australia	562	13	5	-	98	18	115
Total 1P	5,436	32	41	442	531	478	1,009
Proportion of total proved reserves that are unconventional						17%	

¹ Queensland proved sales gas reserves include 807 PJ GLNG and 175 PJ other Santos non-operated Eastern Queensland assets.

Proved reserves reconciliation

				Revisions and	Net acquisitions and	
Product	Unit	2020	Production	extensions	divestments	2021
Sales gas	PJ	2,650	(464)	1,643	1,607	5,436
Crude oil	mmbbl	22	(6)	6	11	32
Condensate	mmbbl	16	(5)	17	13	41
LPG	000 tonnes	466	(203)	178	-	442
Total 1P	mmboe	496	(92)	305	299	1,009

for the year ended 31 December 2021 continued

PROVED PLUS PROBABLE RESERVES

Santos share as at 31 December 2021

	Calaa maa	Crude oil	Condensate	LPG	All products mmboe			
Asset	Sales gas PJ	mmbbl	mmbbl	000 tonnes	Developed	Undeveloped	Total	
Cooper Basin	627	16	7	982	87	52	139	
Queensland & NSW ¹	1,937	-	_	-	122	211	333	
PNG	3,231	20	28	-	370	231	601	
Northern Australia & Timor-Leste	2,074	-	26	64	4	377	381	
Western Australia	1,098	24	10	-	174	48	222	
Total 2P	8,967	59	71	1,046	757	919	1,676	
Proportion of total proved plus probable reserves that are unconventional					20%			

¹ Queensland proved plus probable sales gas reserves include 1,522 PJ GLNG and 405 PJ other Santos non-operated Eastern Queensland assets.

Proved plus probable reserves reconciliation

Product	Unit	2020	Production	Revisions and extensions	Net acquisitions and divestments	2021
Sales gas	PJ	4,960	(464)	2,310	2,161	8,967
Crude oil	mmbbl	39	(6)	6	20	59
Condensate	mmbbl	33	(5)	26	18	71
LPG	000 tonnes	1,269	(203)	36	(56)	1,046
Total 2P	mmboe	933	(92)	427	408	1,676

for the year ended 31 December 2021 continued

2C CONTINGENT RESOURCES

Santos share as at 31 December 2021

Asset	Sales gas PJ	Crude oil mmbbl	Condensate mmbbl	LPG 000 tonnes	All products mmboe
Cooper Basin	1,273	26	18	1,784	277
Queensland & NSW	2,886	-	-	-	496
PNG	4,764	1	54	-	871
Northern Australia & Timor-Leste	4,206	-	63	3	782
Western Australia	1,341	131	18	1,653	393
USA (Alaska)	-	401	-	-	401
Total 2C	14,469	560	152	3,440	3,219

2C Contingent resources reconciliation

			Revisions and		Net acquisitions	
Product	2020	Production	extensions	Discoveries	and divestments	2021
Total 2C (mmboe)	2,282	-	(402)	60	1,280	3,219

CO2 STORAGE

Capacity and 2C contingent resources as at 31 December

Santos share	Unit	2021	2020	% change
Proved capacity	MtCO2	6	-	N/A
Proved plus probable capacity	MtCO2	9	-	N/A
2C contingent resources	MtCO2	91	-	N/A

for the year ended 31 December 2021 continued

Notes

- 1 This reserves statement:
 - a. is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, the qualified petroleum reserves and resources evaluators listed in note 14 of this reserves statement. Details of each qualified petroleum reserves and resources evaluator's employment and professional organisation membership are set out in note 14 of this reserves statement; and
 - as a whole has been approved by Paul Lyford, who is a qualified petroleum reserves and resources evaluator and whose employment and professional organisation membership details are set out in note 14 of this reserves statement; and
 - is issued with the prior written consent of Paul Lyford as to the form and context in which the estimated petroleum reserves and contingent resources and the supporting information are presented.
- The estimates of petroleum reserves and contingent resources contained in this reserves statement are as at 31 December 2021.
- Santos prepares its petroleum reserves and contingent resources estimates in accordance with the 2018 Petroleum Resources Management System (PRMS) and CO2 Storage capacity and contingent resource estimates in accordance with the 2017 CO2 Storage Resources Management System (SRMS) sponsored by the Society of Petroleum Engineers (SPE).
- 4. This reserves statement is subject to risk factors associated with the oil and gas industry. It is believed that the expectations of petroleum reserves and contingent resources reflected in this statement 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, 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.
- 5. All estimates of petroleum reserves, contingent resources and CO2 Storage reported by Santos are prepared by, or under the supervision of, a qualified petroleum reserves and resources evaluator or evaluators. Processes are documented in the Santos Reserves Policy which is overseen by a Reserves Committee. The frequency of reviews is dependent on the magnitude of the petroleum reserves and contingent resources and changes indicated by new data. If the changes are material, they are reviewed by the Santos internal technical leaders and externally audited.
- 6. Santos engages independent experts Gaffney, Cline & Associates, Netherland, Sewell & Associates, Inc. and RISC Advisory Pty Ltd to audit and/or evaluate reserves, contingent resources and CO2 storage. Each auditor found, based on the outcomes of its respective audit and evaluation, and its understanding of the estimation processes employed by Santos, that Santos' 31 December 2021 petroleum reserves, contingent resources and CO2 storage quantities in aggregate compare reasonably to those estimates prepared by each auditor. Thus, in the aggregate, the total volumes summarised in the tables included in this reserves statement represent a reasonable estimate of Santos' petroleum reserves, contingent resources and CO2 storage position as at 31 December 2021.

- 7. Unless otherwise stated, all references to petroleum reserves, contingent resources and CO2 storage quantities in this reserves statement are Santos' net share. Barossa is carried at 50 per cent share reflecting the binding SPA to selldown 12.5 per cent equity to JERA announced 8 December 2021 with completion expected in the first half of 2022.
- Reference points for Santos' petroleum reserves and contingent resources and production are defined points within Santos' operations where normal exploration and production business ceases, and quantities of produced product are measured under defined conditions prior to custody transfer. Fuel, flare and vent consumed to the reference points are excluded.
- Petroleum reserves, contingent resources and CO2 storage are aggregated by arithmetic summation by category and as a result, proved reserves may be a very conservative estimate due to the portfolio effects of arithmetic summation.
- Petroleum reserves, contingent resources and CO2 storage are typically prepared by deterministic methods with support from probabilistic methods.
- 11. Any material concentrations of undeveloped petroleum reserves that have remained undeveloped for more than 5 years: (a) are intended to be developed when required to meet contractual obligations; and (b) have not been developed to date because they have not yet been required to meet contractual obligations.
- Petroleum reserves replacement ratio is the ratio of the change in petroleum reserves (excluding production) divided by production. Organic reserves replacement ratio excludes net acquisitions and divestments.
- 13. Information on petroleum reserves, contingent resources and CO2 storage quoted in this reserves statement is rounded to the nearest whole number. Some totals in the tables may not add due to rounding. Items that round to zero are represented by the number 0, while items that are actually zero are represented with a dash "-".
- 14 Qualified Petroleum Reserves and Resources Evaluators

Name	Employer	Professional organisation
P Lyford	Santos Ltd	SPE
N Pink	Santos Ltd	SPE, SPEE
A White	Santos Ltd	SPE
D Nicolson	Santos Ltd	SPE
S Lawton	Santos Ltd	SPE
C Winterfield	Santos Ltd	SPE
A Judzewitsch	Santos Ltd	SPE
M Ireland	Santos Ltd	SPE, SPEE
J Hattner	NSAI	SPE, AAPG

SPE: Society of Petroleum Engineers
SPEE: Society of Petroleum Evaluation Engineers
AAPG: American Association of Petroleum Geologists

Abbreviations

1P	proved reserves
2P	proved plus probable reserves
GJ	gigajoules
LNG	liquefied natural gas
LPG	liquefied petroleum gas
mmbbl	million barrels
mmboe	million barrels of oil equivalent
MtCO2	million tonnes of carbon dioxide
NGLs	natural gas liquids
PJ	petajoules
tcf	trillion cubic feet
TJ	terajoules

Conversion factors

Sales gas and ethane, 1 PJ	171,937 boe
Crude oil, 1 barrel	1 boe
Condensate, 1 barrel	0.935 boe
LPG, 1 tonne	8.458 boe