

#### **Energy to deliver**

**UBS Resources, Energy and Utilities Conference** 

Ian Davies, Managing Director and CEO Sydney, 13 June 2013





#### Important notice and disclaimer

#### **Important information**

This Presentation has been prepared by Senex Energy Limited (**Senex**). It is current as at the date of this Presentation. It contains information in a summary form and should be read in conjunction with Senex's other periodic and continuous disclosure announcements to the Australian Securities Exchange (**ASX**) available at: <a href="https://www.asx.com.au">www.asx.com.au</a>.

**Risk and assumptions** - An investment in Senex shares is subject to known and unknown risks, many of which are beyond the control of Senex. In considering an investment in Senex shares, investors should have regard to (amongst other things) the risks outlined in this presentation and in other disclosures and announcements made by Senex to the ASX.

This presentation contains statements, opinions, projections, forecasts and other material, based on various assumptions. Those assumptions may or may not prove to be correct.

**No investment advice** - The information contained in this presentation does not take into account the investment objectives, financial situation or particular needs of any recipient and is not financial advice or financial product advice. Before making an investment decision, recipients of this presentation should consider their own needs and situation, satisfy themselves as to the accuracy of all information contained herein and, if necessary, seek independent professional advice.

**Disclaimer** - To the extent permitted by law, Senex, its directors, officers, employees, agents, advisers and any person named in this presentation:

give no warranty, representation or guarantee as to the accuracy or likelihood of fulfilment of any assumptions upon which any part of this presentation is based or the accuracy, completeness or reliability of the information contained in this presentation; and

accept no responsibility for any loss, claim, damages, costs or expenses arising out of, or in connection with, the information contained in this presentation.

#### Reserve and resource estimates

Unless otherwise indicated, the statements contained in this presentation about Senex's reserves estimates have been compiled by Mr James Crowley BSc (Hons), who is General Manager – Exploration and Development, a full time employee of Senex, in accordance with the definitions and guidelines in the 2007 Petroleum Resources Management System approved by the Society of Petroleum Engineers (SPE PRMS).

Mr Crowley consents to the inclusion of the estimates in the form and context in which they appear. Senex's reserves and resources are consistent with the SPE PRMS.



#### Senex is a major player in the Cooper Basin

South Australian
Cooper Basin focus

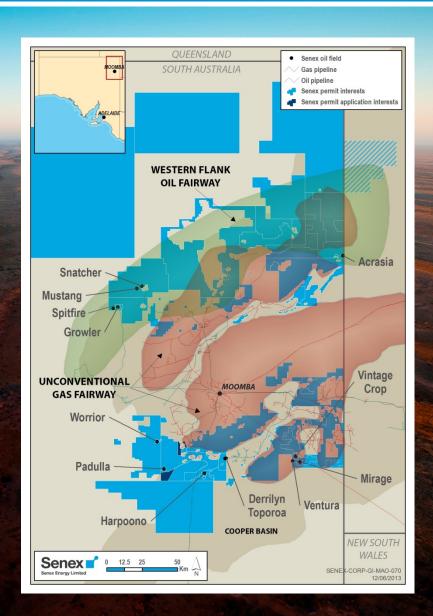
Proven onshore hydrocarbon province

64 permits

14 operated oil fields

37 joint ventures

71,933 km² net acreage



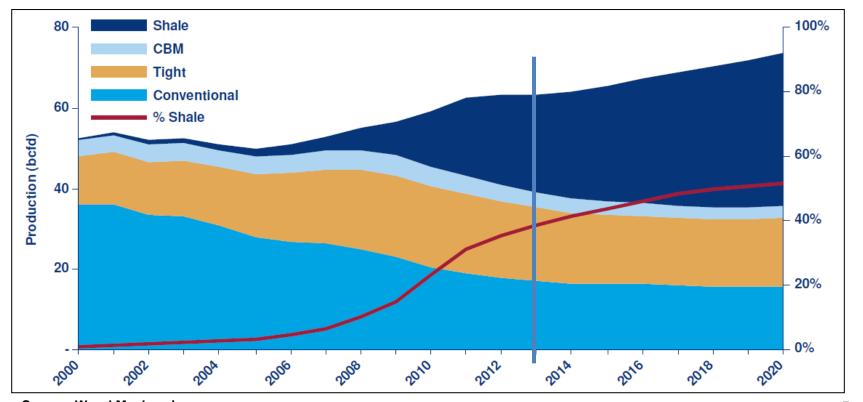


#### Senex's growing gas business



# North American gas supply – conventional Senex of gas to shale: Australia 10 years behind

- Conventional gas substitution from coal seam gas and tight gas sands initially
- Tight gas sands include conventional stratigraphic traps and basin centred gas, both present in material quantities in the Cooper Basin
- Traditional gas supply has been eclipsed by the rise of shale gas (and latterly liquids rich shale gas), now accounting for more than 30% of supply



Source: Wood Mackenzie

# **Exploration always targets the easy plays first**



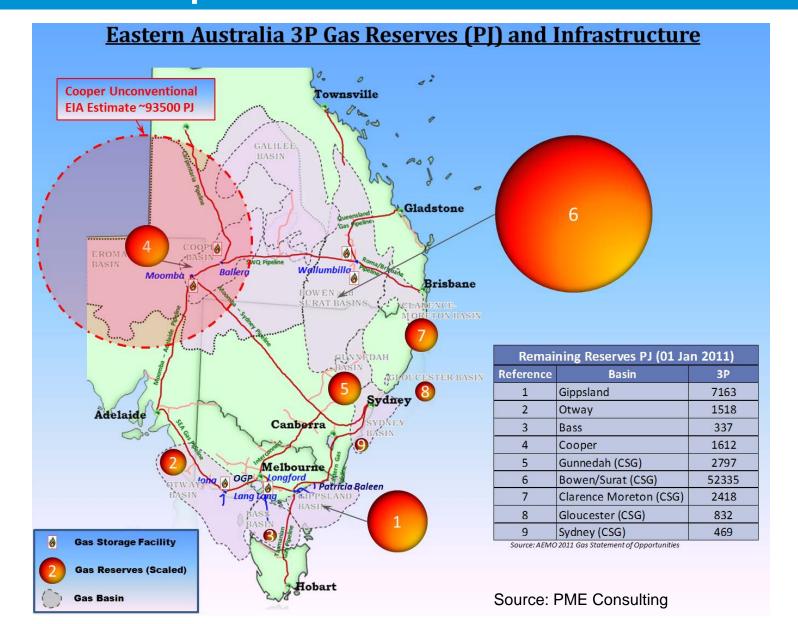
#### **Mature Basin**

- Majority of current exploration targets are stratigraphic traps
- 70%+ 3D seismic coverage
- High well density
- Production enhancement methods are the norm
- Extensive use of secondary and tertiary recovery methods
- Highly competitive contractor market

#### **Cooper Basin**

- Majority of past exploration targeted structural traps
- 20% 3D seismic coverage
- Low well density
- Majority of gas and oil reservoirs have NOT been fracture stimulated
- Rare use of secondary recovery, no tertiary recovery
- Concentrated and low number of contractors

# Massive new gas supply opportunities from **Senex** Australia's Cooper Basin

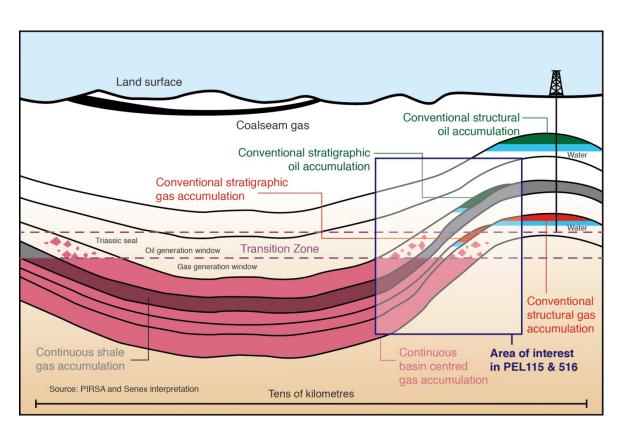




#### The Cooper Basin hosts all gas reservoir types...

#### A continuum exists between conventional and unconventional reservoirs:

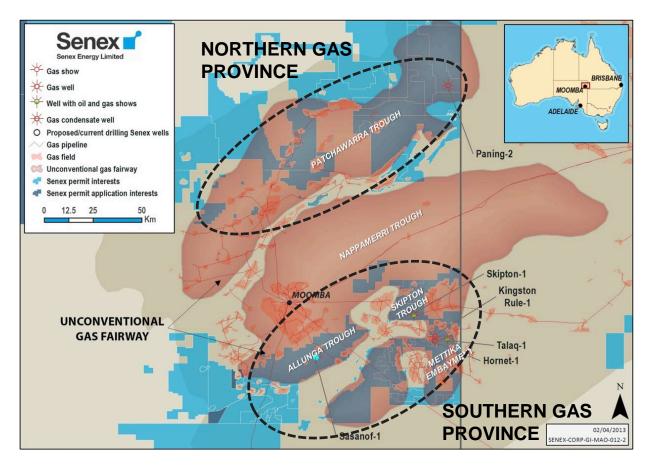
- Conventional reservoirs are those dominated by buoyancy and capillary forces
- Unconventional reservoirs are those dominated by capillary and molecular forces



- c.95% of all Cooper Basin gas discoveries to date are in conventional structural traps
- Huge opportunities exist in other reservoir types

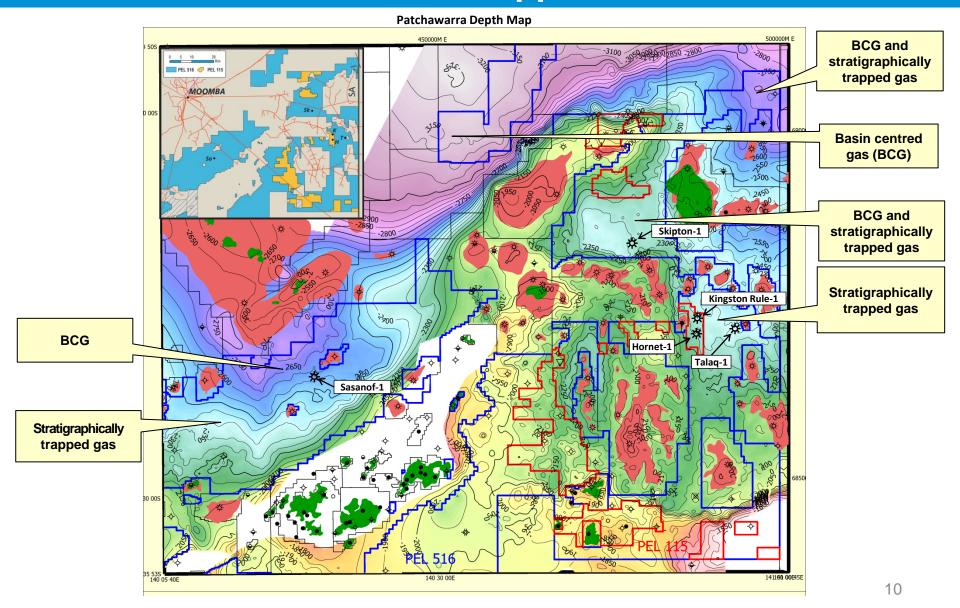
# ...with huge gas potential in the north and south SA Cooper Basin





- Multi-Tcf recoverable gas resource identified in the "Southern Gas Province"
- 2.2+ mmscfd gas flows from Hornet-1
- 1.4+ mmscfd gas flow from Kingston Rule-1
- Paning-2 confirmed gas in deep coals of the "Northern Gas Province"
- Material work program for FY14

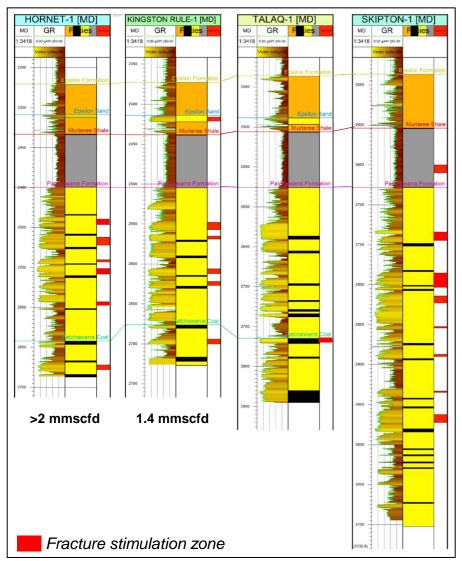
# Historically, conventional structural traps Senex Language have been drilled – material opportunities remain



#### Senex

# **Encouraging results from recent fracture stimulation program...**

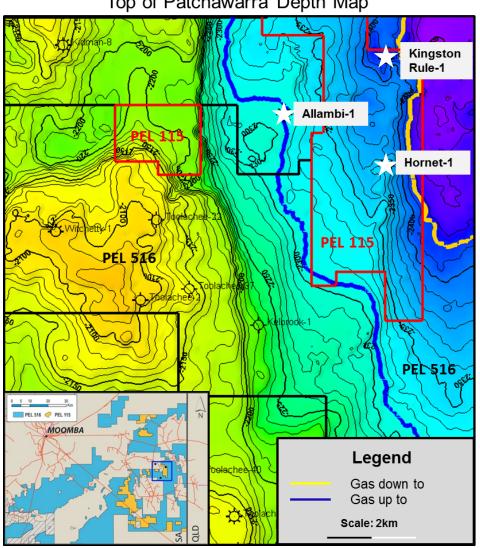
Well	Formations	Stages
Kingston	Patchawarra	4
Rule-1	Epsilon	1
Hornet-1	Patchawarra	5
Skipton-1	Patchawarra	7
	Murteree	1
Talaq-1	Patchawarra coal	1
Paning-2	Toolachee	1
	Epsilon	2
	Patchawarra	2



#### ...with a significant stratigraphic gas accumulation identified...



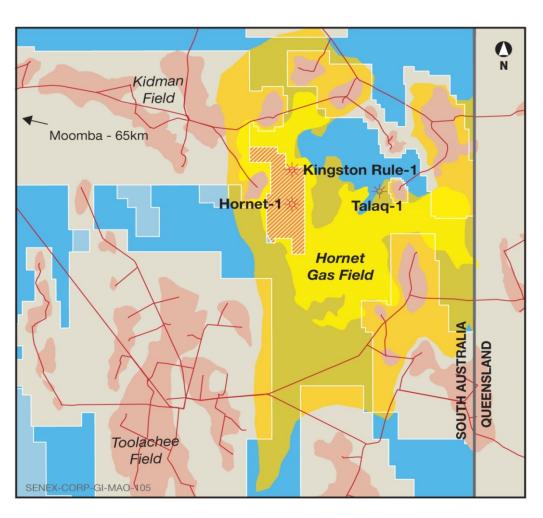
Top of Patchawarra Depth Map



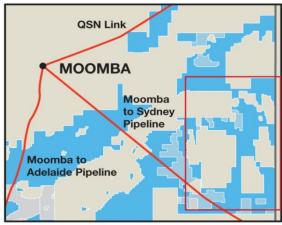
- Up to 2.9 Tcf (high estimate) estimated recoverable gas
- Kingston Rule-1 tested the known down-dip limit in **PEL 115**
- Hornet-1 tested an up-dip extent of the stratigraphic accumulation
- The resource extends along strike into PEL 516 and up-dip to Allambi-1
- Commercialisation possible through existing infrastructure

# ...resulting in the identification of the Hornet gas field









# Appraisal program planned for the Hornet conventional stratigraphic tight reservoir

#### Senex

- Program objectives so far:
  - Gas to surface: resource definition
  - Continual cost reduction
- Appraisal wells planned for FY14 to confirm extent of resource and to improve deliverability
- Dedicated rigs being brought in country, with enhanced service company support

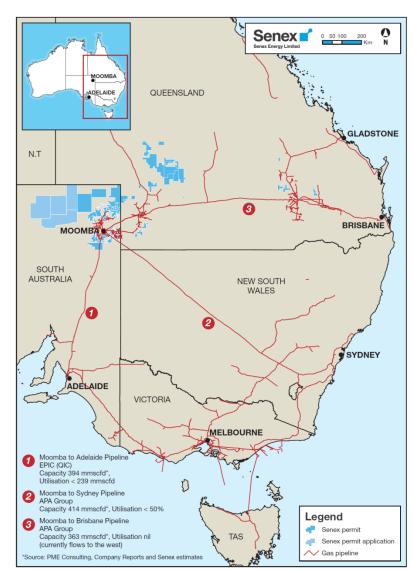
Estimated recoverable gas, net of CO <sub>2</sub> and fuel		
Contingent resource (1C)	176 Bcf (gross) 141 Bcf (net)	
Prospective resource (net)		
High estimate	2,949 Bcf	
Best estimate	771 Bcf	
Low estimate	183 Bcf	





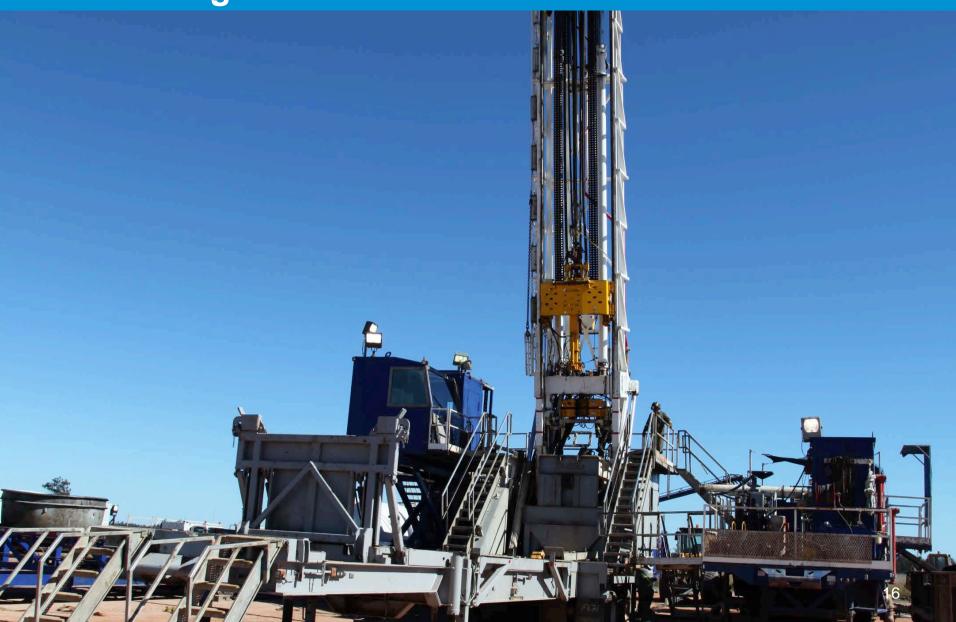
#### The path to commercialisation

- Appraisal program to delineate the Hornet resource
- Technology to reduce costs and increase productivity:
  - Reservoir understanding
  - Service providers: drilling, casing, cementing, logging, completions, fracture stimulation
- International interest in Cooper Basin continues to grow
- Markets:
  - Domestic
  - 3<sup>rd</sup> party supply to LNG
  - Brownfields LNG
  - Greenfields LNG



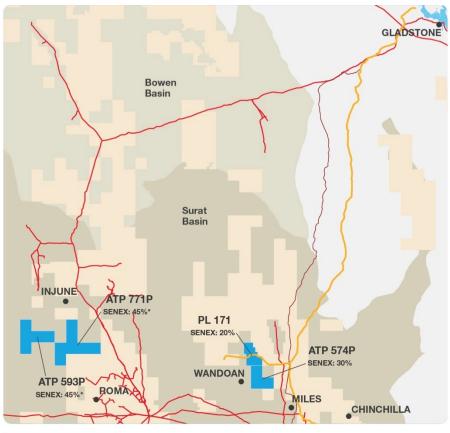


#### Coal seam gas





#### Continued growth in 2P and 3P reserves



# BRISBANE

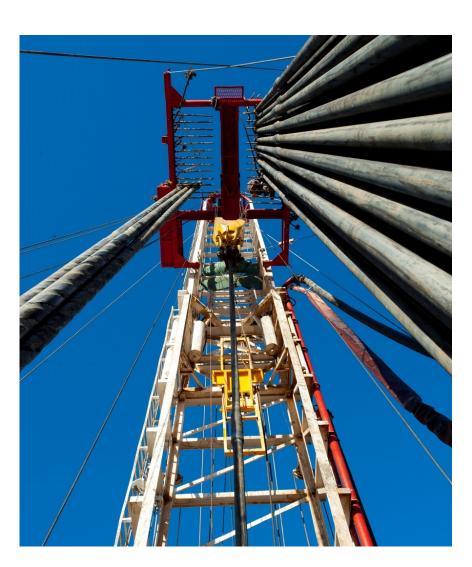
# Legend Existing gas pipelines Proposed QGC gas pipeline (under construction) Proposed APLNG gas pipeline (under construction) Senex permit interests Surrounding CSG-LNG permits

#### Net reserves:

- 2P reserves 156.6 PJ
- 3P reserves 357.7 PJ
- 598 PJ of reserves and resources (~102.8 mmboe)
- Located in the Gladstone LNG feedstock heartland
- Intensifying interest in monetisation opportunities
- Seven successful appraisal wells drilled in 2012/13
- Planning underway for further eleven exploration and appraisal wells across eastern and western permits



#### Continuing value add in 2013/14



- Exploration and appraisal to build 2P reserves and enhance resource definition
- 11-well program across eastern and western permits
- Field development planning and future pilot production programs
- Intensifying interest in monetisation opportunities
- CSG to LNG projects will require additional third party gas supplies

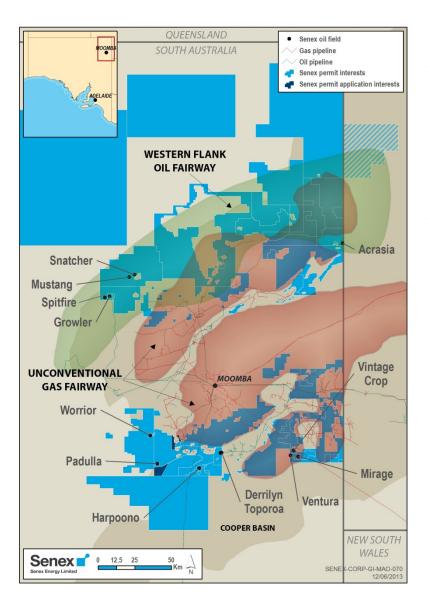


#### High margin, high growth oil business



# Oil production continues to underpin Senex's strong financial position



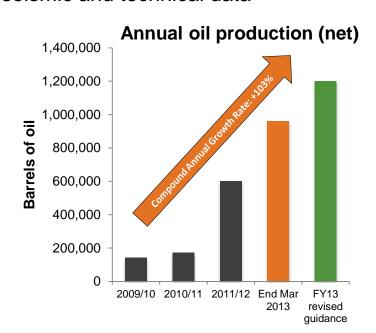


#### **Production:**

- Nine months to 31 March 2013 net production of 956,241 barrels, up 60% on 2011/12 full year
- Revised production guidance of 1.2 million barrels (up from 1 million barrels)

#### **Drilling to recommence:**

 More than 30 exploration, appraisal and development targets identified from existing seismic and technical data



# Cooper Basin Western Flank: a proven oil **Senex** rovince with exceptional growth opportunities



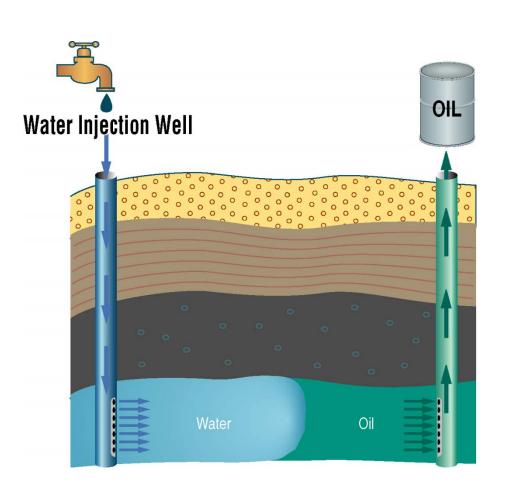
- Underexplored due to history of the area
- Oil shows throughout the region provide increased confidence
- High quality 3D seismic is the key exploration tool
- Significant recoverable resources already identified
- Senex holds majority equity and operates all of its interests in the South Australian Cooper Basin Western Flank

## Old ideas to new areas, new ideas to old areas



## Senex believes there is massive potential through:

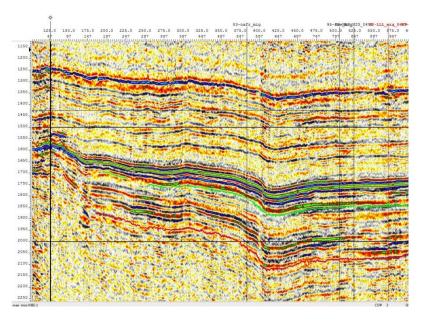
- Patterned water-flooding
- Fracture stimulation of both oil and gas reservoirs
- Application of horizontal wells
- Fracture stimulation of horizontal wells
- Underbalanced and at-balance drilling
- Drilling with casing
- And more...





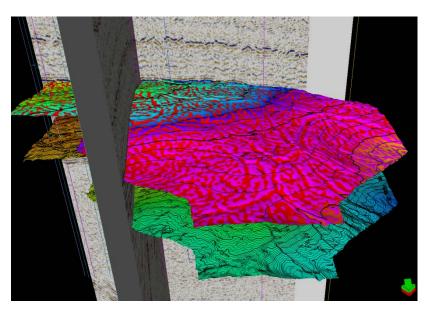
#### The role of 3D seismic

#### Exploration is all about "seeing" the subsurface to minimise risk



2D seismic line near Skipton-1

2D seismic only provides vertical sections of the earth in one direction

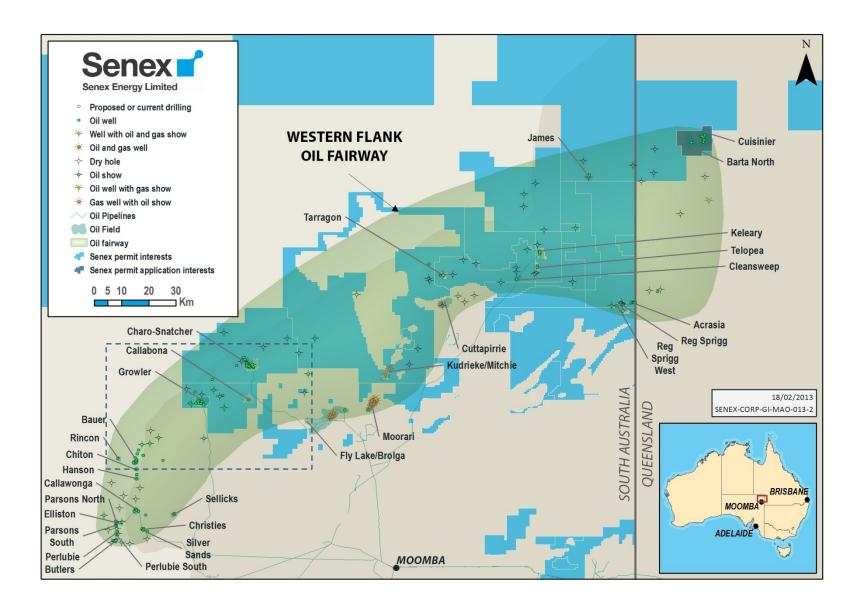


3D seismic image of Acrasia oil field

3D seismic provides sections in any direction for better definition of traps

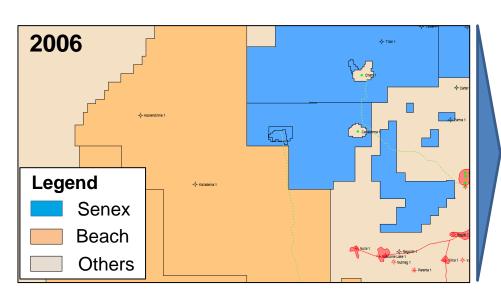
# Oil discoveries span the fairway, but it remains under-explored

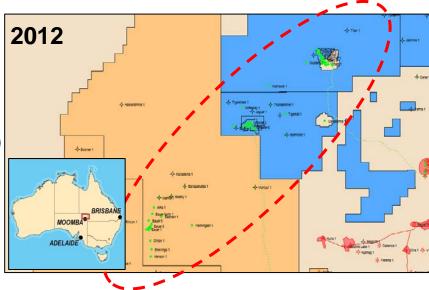




## Recent results point to a significant Western Flank resource...

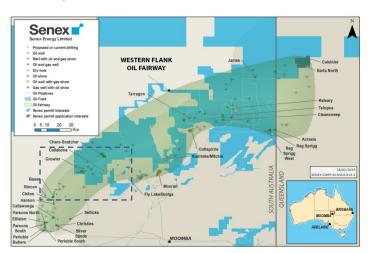






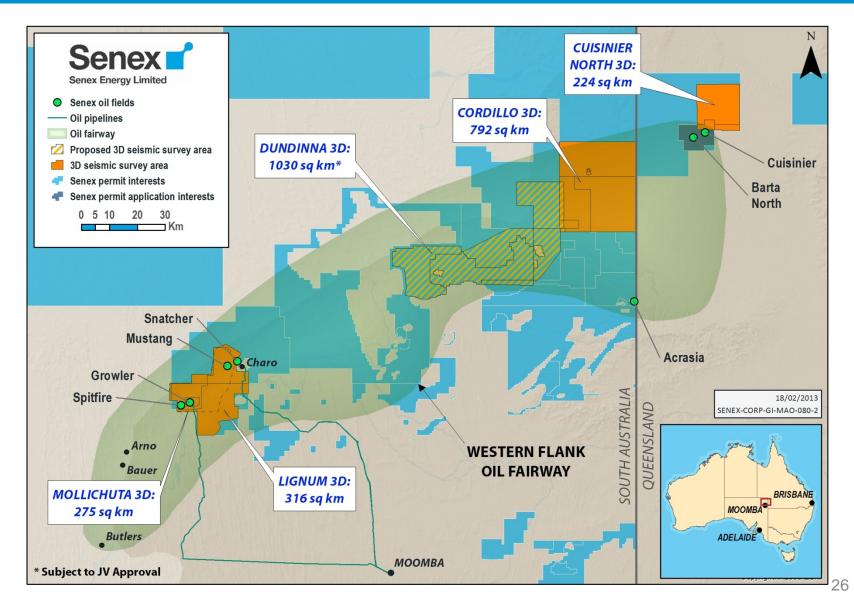
The Cooper Basin is significantly underexplored compared with mature North American hydrocarbon provinces:

	Permian Basin	Cooper Basin
Well density	69 / 100 km <sup>2</sup>	2.3 / 100 km <sup>2</sup>

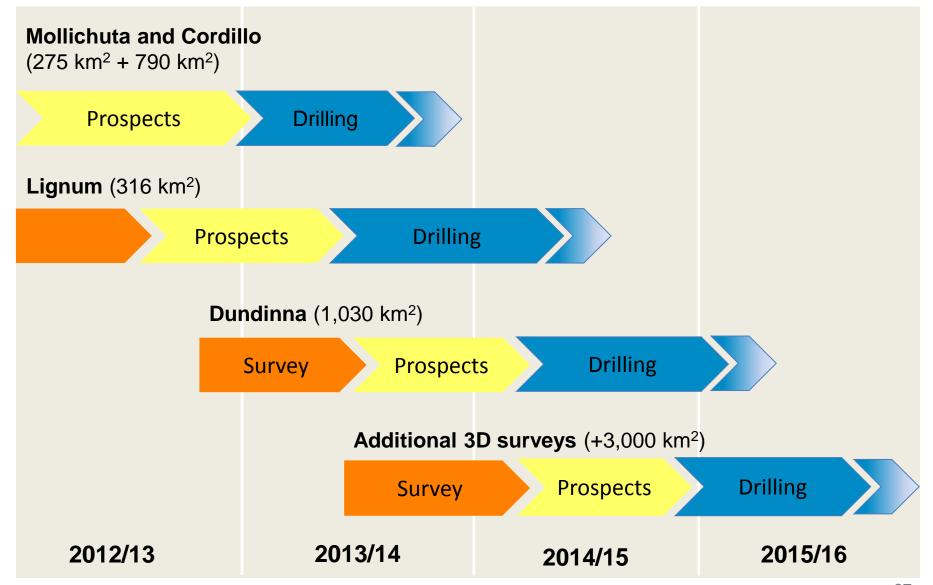


# ...with broad-acre 3D seismic the key to unlocking the potential





# Senex is developing a large pipeline of Senex opportunities to grow production and reserves





#### Positioned for success

- 2012/13 oil production guidance increased to 1.2 million net barrels
- Material oil reserves upgrade at full year following exploration success
- Strong cash position and no debt
- Operating costs continue to fall
- Intensifying interest in CSG assets with continued reserve build success
- Early success with gas exploration in a rising gas price environment
- Fully funded through FY14



# Senex Energy Limited

**Registered Office** 

Level 14, 144 Edward Street GPO Box 2233 Brisbane Queensland 4000 Australia **Telephone** 

+61 7 3837 9900

**Email** 

info@senexenergy.com.au