Senex

Senex Energy Limited

# Delivering value and growth

**Ian Davies, Managing Director**

**Singapore and Hong Kong, June 2012**

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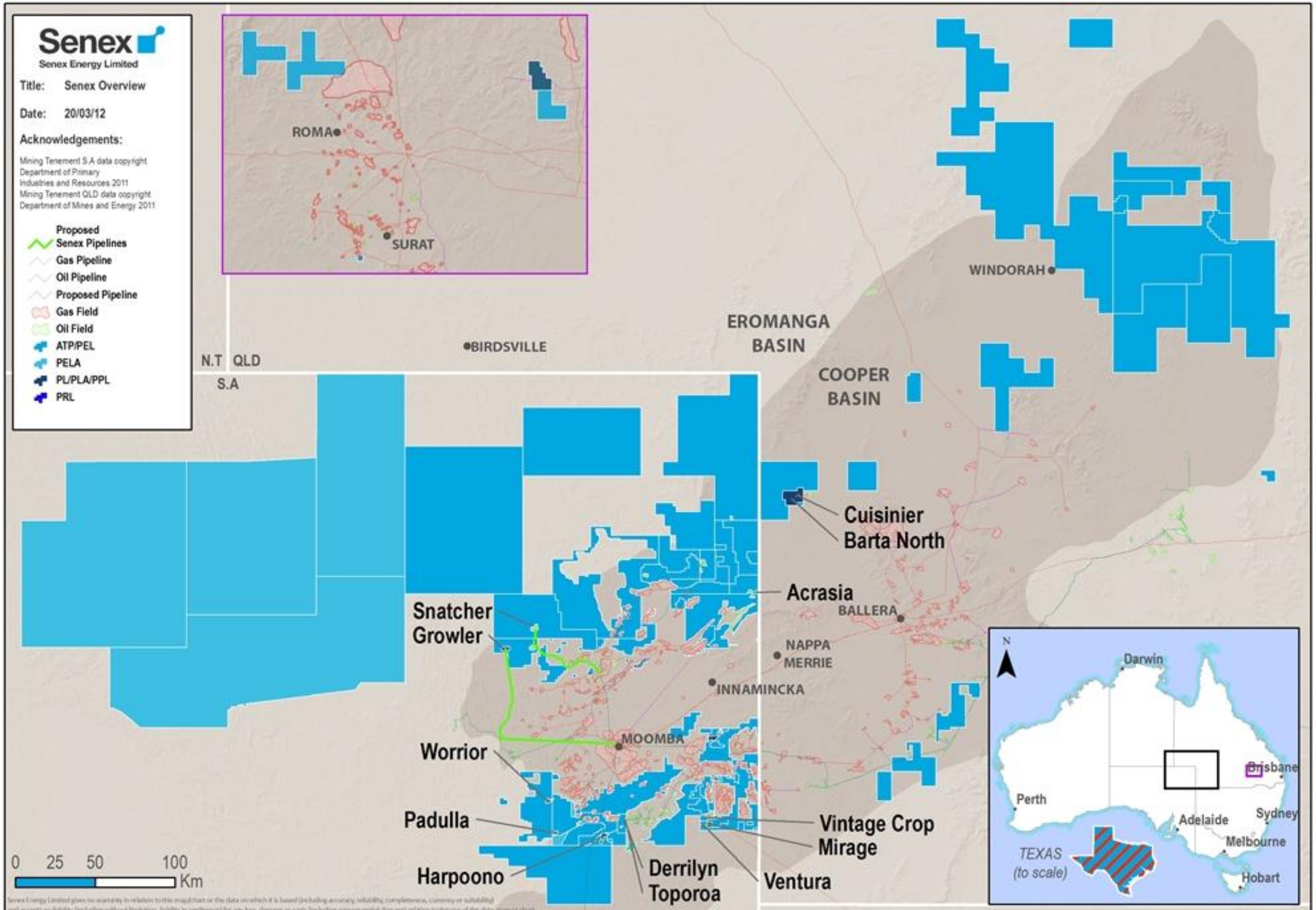
## Reserves

Unless otherwise indicated, the statements contained in this presentation about Senex's reserves estimates have been prepared by Dr Steven Scott BSc (Hons), PhD, who is General Manager – Exploration, 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**). Dr Scott consents to the inclusion of the reserves estimates in the form and context in which they appear. Senex's reserves are consistent with the SPE PRMS.

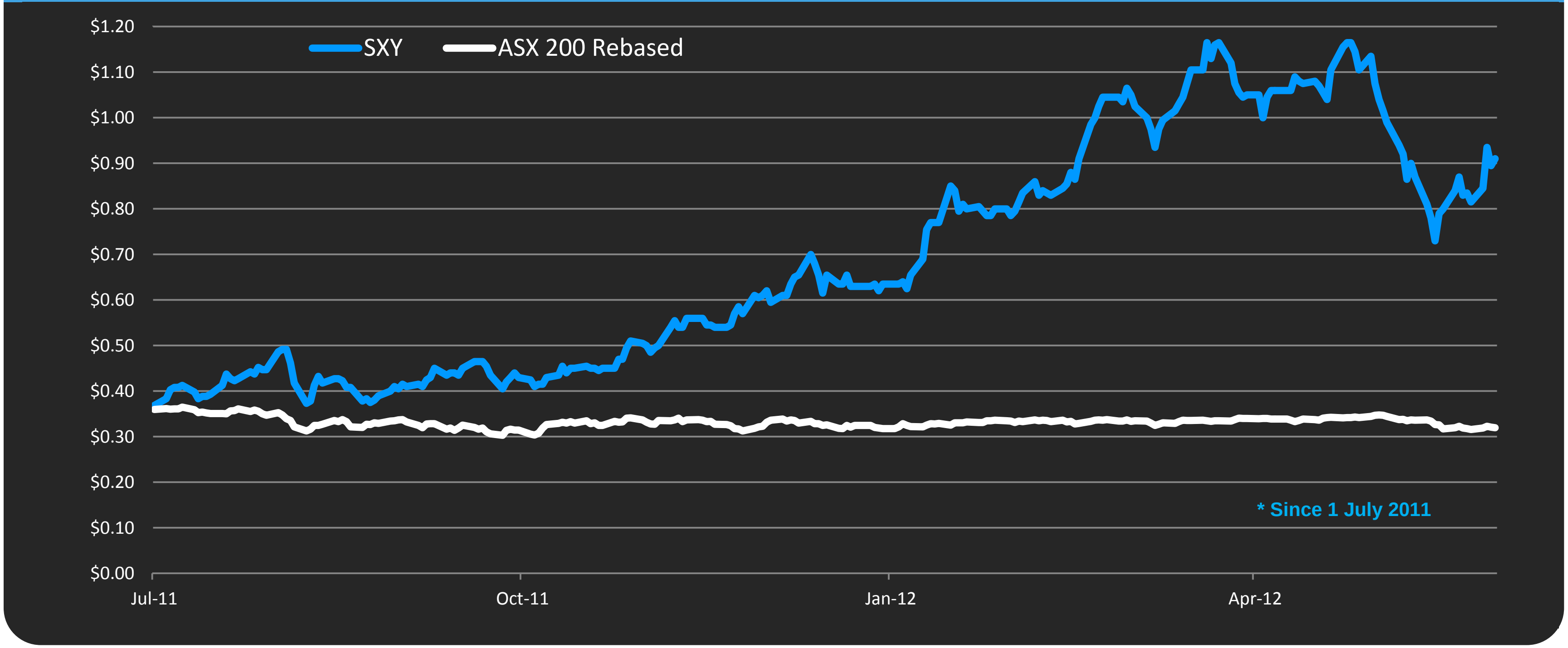
# Senex Energy: Oil, CSG and Unconventional Gas



# Senex share price continues to outperform…

- Admitted to the S&P/ASX 200 in April 2012
- Ranked 5th on the Deloitte Queensland Energy and Resources Index *
- Market capitalisation of ~$850 million

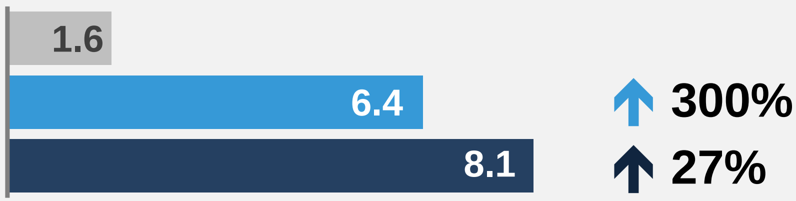
Senex share price materially outperforms the S&P/ASX 200



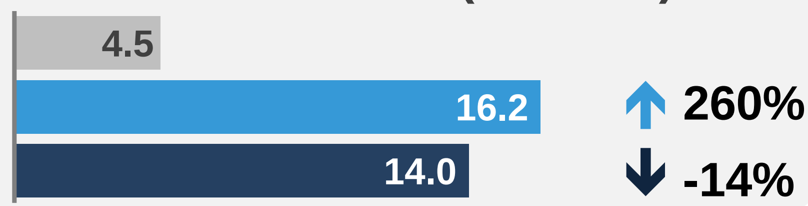

* 31 December 2011 edition

# …with excellent success to date on all key metrics

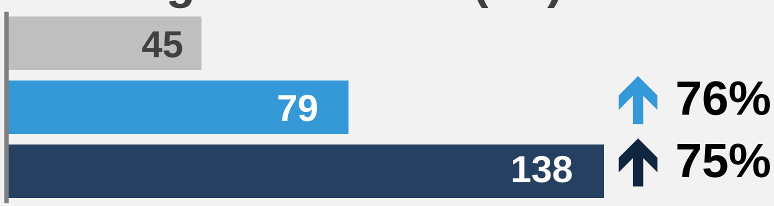
## Net 2P oil reserves (mmbbls)



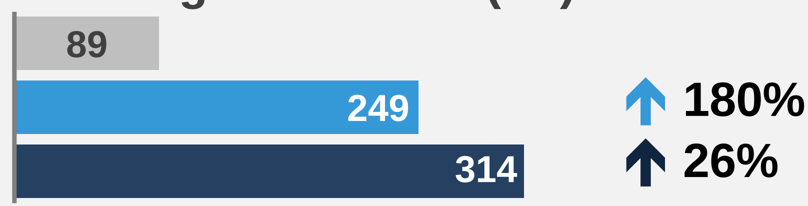

## Net 3P oil reserves (mmbbls)



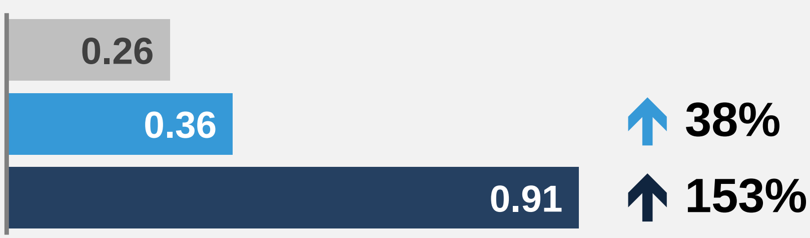

## Net 2P gas reserves (PJ)




## Net 3P gas reserves (PJ)




## Share price (A$m)




## Market capitalisation (A$)


30 June 2010 30 June 2011 31 May 2012



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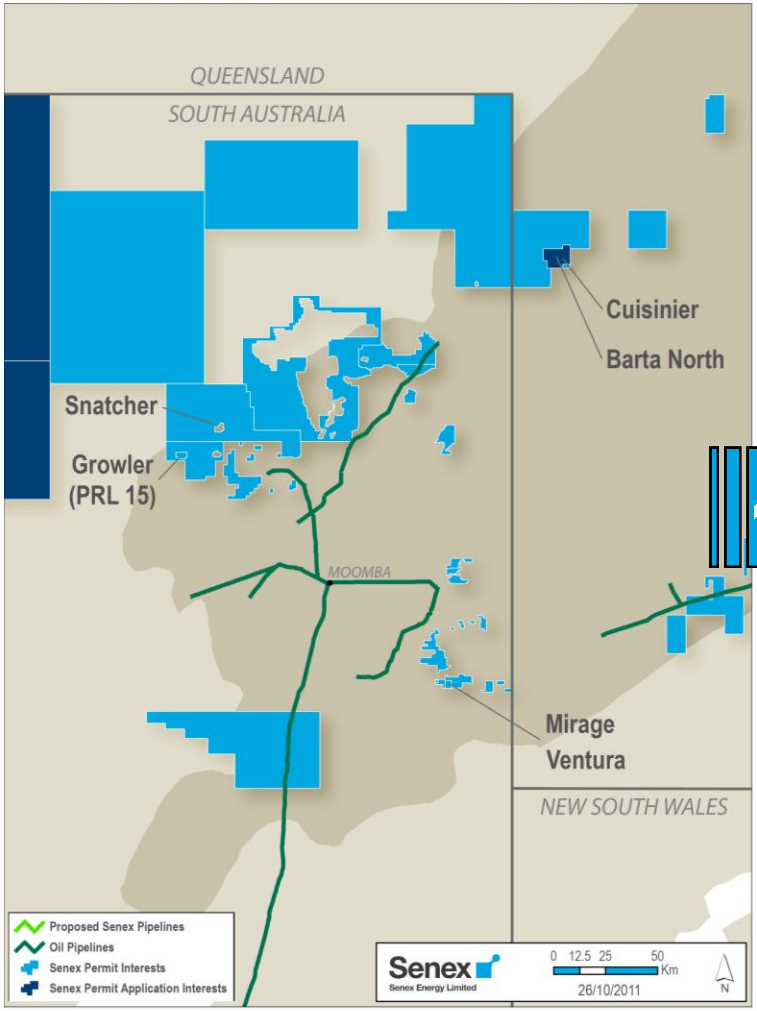
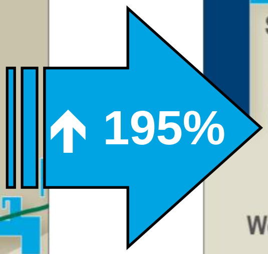
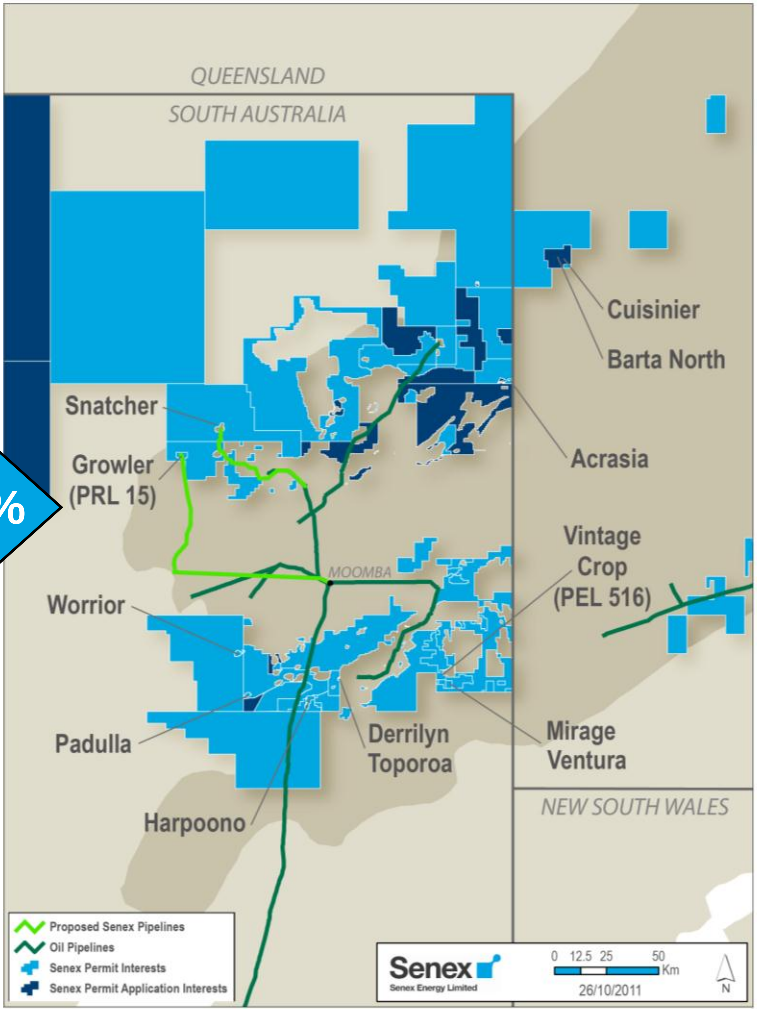
# Senex a high growth Cooper Basin E&P company…

**30 June 2010: 22,351 km²**

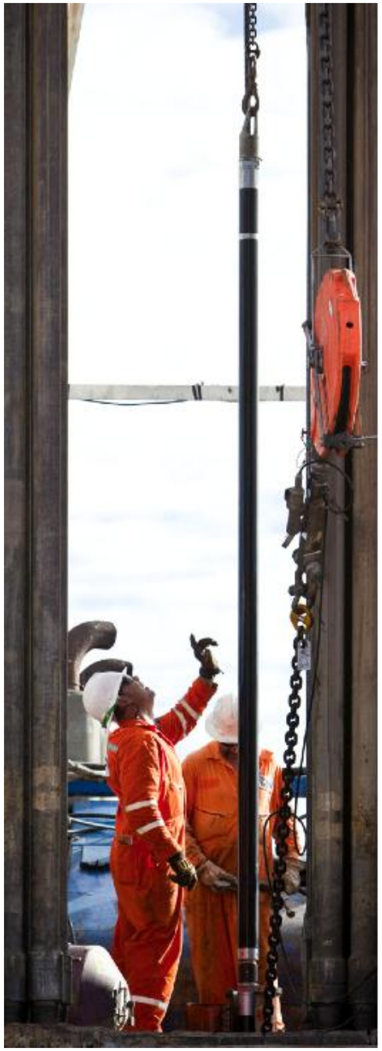



**31 December 2011: 65,854 km²**



# …with a focus on execution of strategic priorities



1. **Growing the oil business to generate cash flow**
   - Record oil production in FY12
   - 12 western flank exploration and appraisal wells drilled in 2011/12
   - Substantial reserve upgrade achieved in April
   - Record production rates (>5,000 bopd gross) achieved
2. **Unlocking a world class unconventional gas resource**
   - Commenced definition of over 100 Tcf net Gas-in-Place resource
   - Successful injectivity testing at Allunga Trough-1
   - Sasanof-1 exploration well drilled and fracture stimulated – currently testing for gas flow
   - Talaq-1 exploration well currently being drilled
3. **Appraising and developing Surat Basin CSG**
   - Material 2P reserve increase achieved



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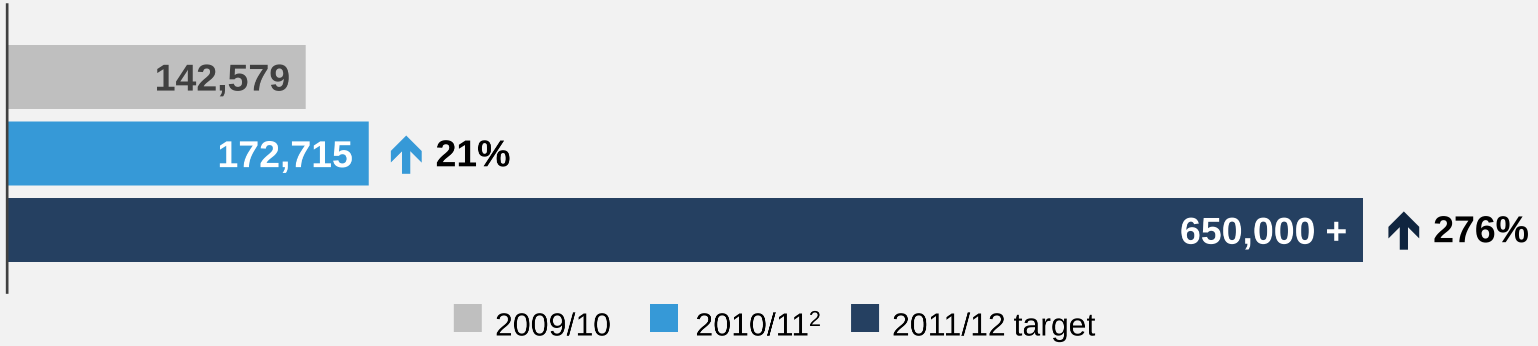
# High margin oil business in the South Australian Cooper Basin

# Oil production generating cash flow

- Strong oil pricing (Brent)
- High net back of ~A$70 per barrel [1]
- Major land position and operatorship
- Fast drill and tie-in with high flow rates
- Low risk exploration on 3D seismic
- Proposed pipelines to increase production and secure delivery

## Net oil production






Note 1: At Brent oil price of A$100/barrel, with delivered opex.

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# 12 western flank oil wells drilled in 2011/12

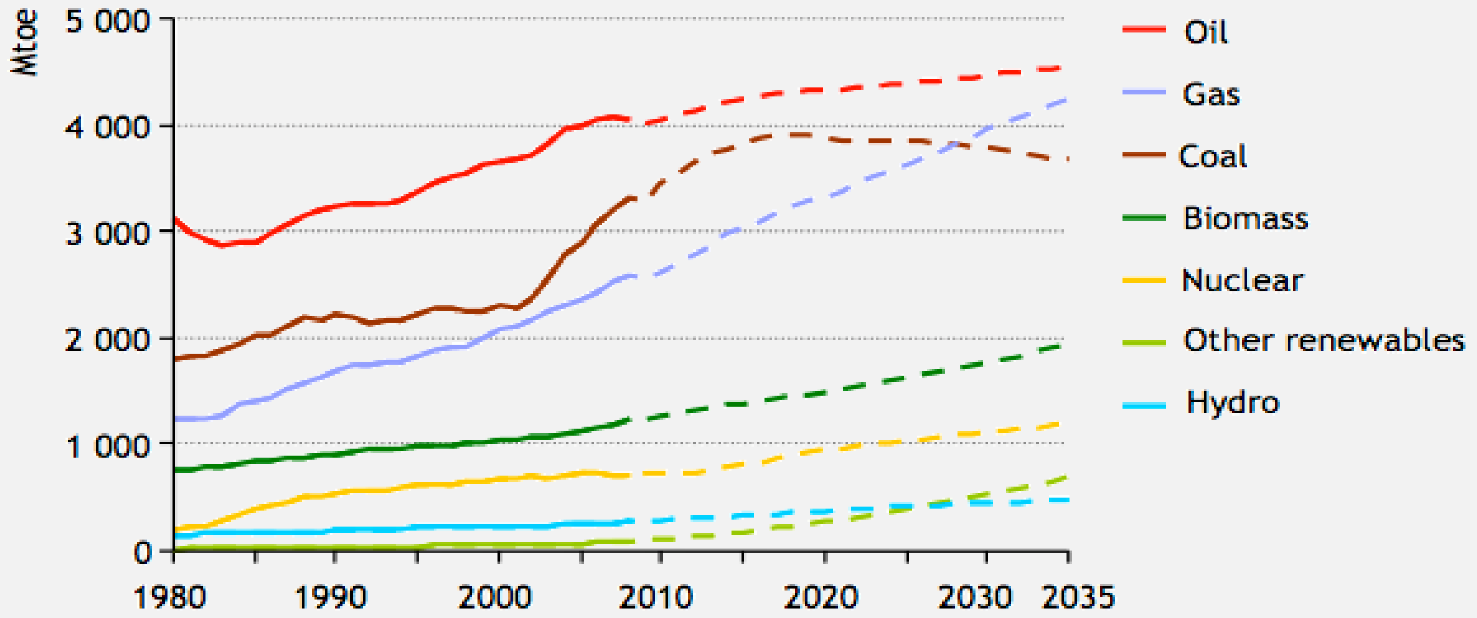
## 25 Birkhead channel exploration prospects in PEL 104 and PEL 111

# Strong outlook for Australian gas

# Senex is in the box seat for the Golden Age of Gas

- Domestic growth fuelled by gas fired generation
- LNG markets provide access to oil-linked gas pricing
- Gas prices trending towards $6-$9 per gigajoule

**World primary energy demand by fuel**

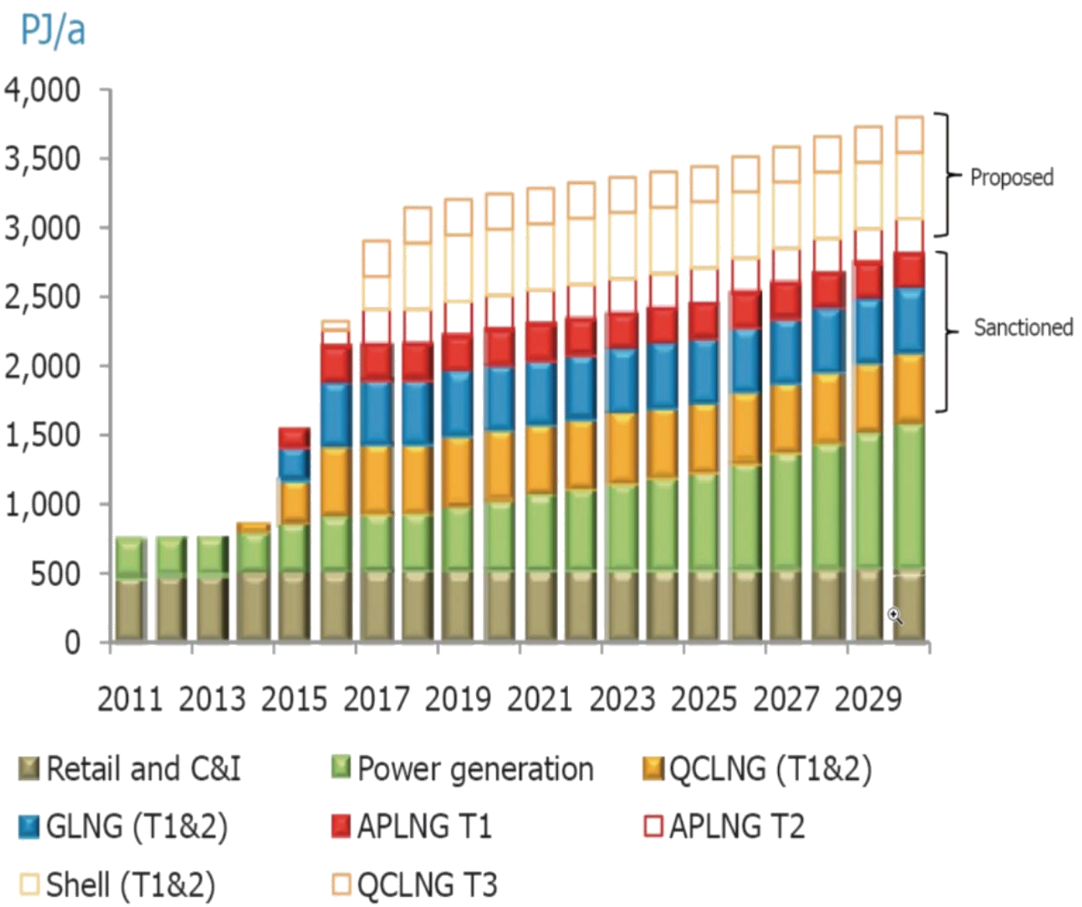



Source: International Energy Agency, World Energy Outlook 2011, GAS Scenario

# Increasing gas demand in Australia's east coast

**CHANGING DYNAMICS**

- Eastern Australian domestic gas demand: ~700 PJ pa
- Total eastern Australian gas demand forecast to triple by 2020
- Growth driven by power generation and LNG
- Senex perfectly positioned to supply eastern Australian gas markets




Source: Santos, Eastern Australia Business Unit Presentation, 26 September 2011



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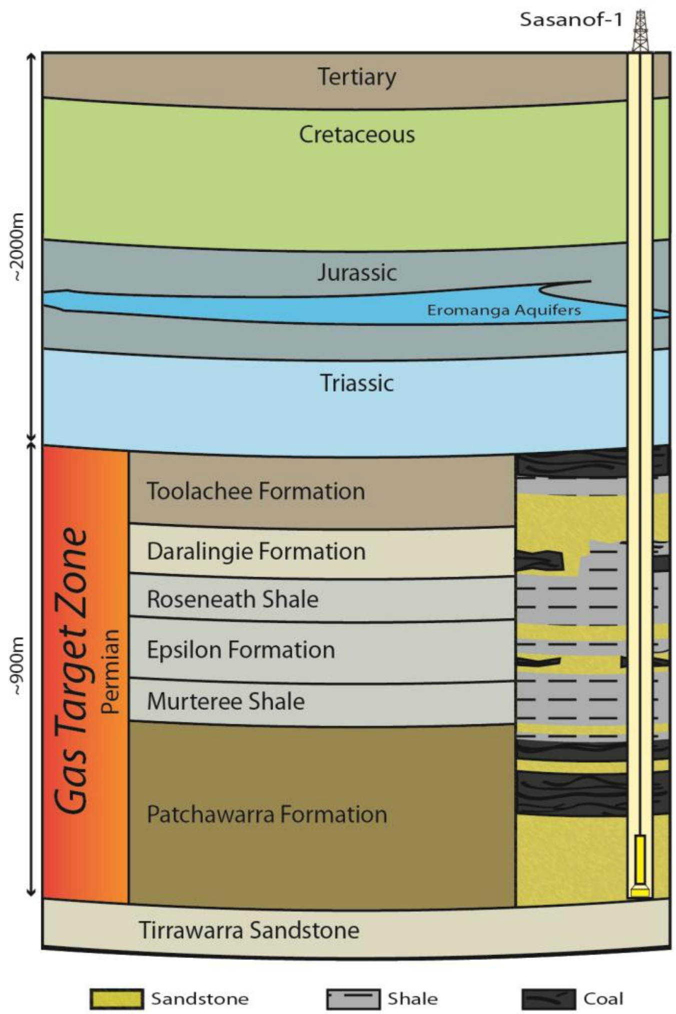
# Commanding unconventional gas position in Australia’s Cooper Basin

# Senex Energy: world class unconventional gas potential




**Stratigraphic column showing target formations for unconventional gas**

### *Tight sands*

- Toolachee, Epsilon and Patchawarra tight sand / coal sequences
- Basin centred gas plays
- North American analogues

### *Shales*

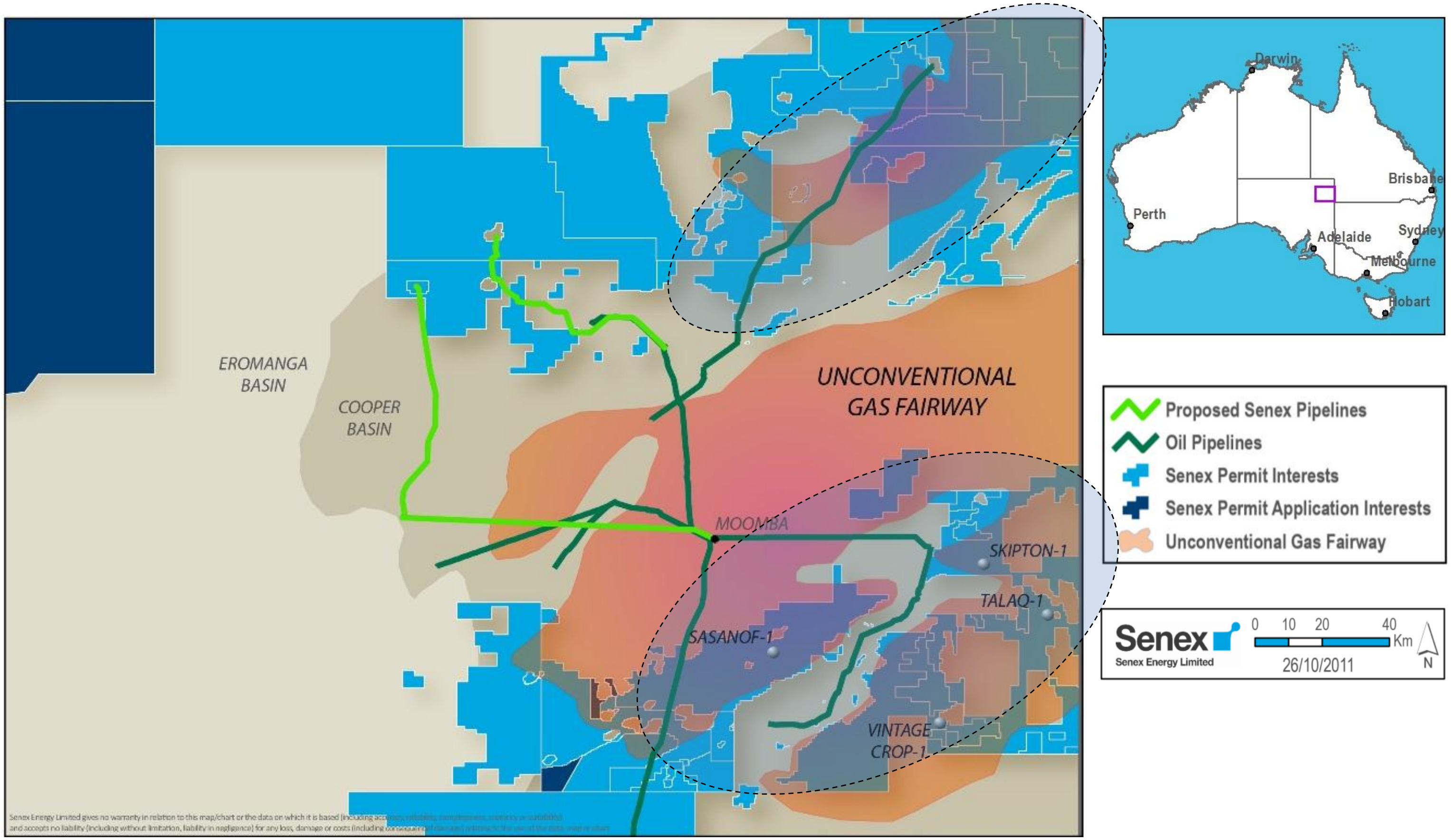
- Thick, mature Roseneath and Murteree shales
- North American analogues

### *Coals*

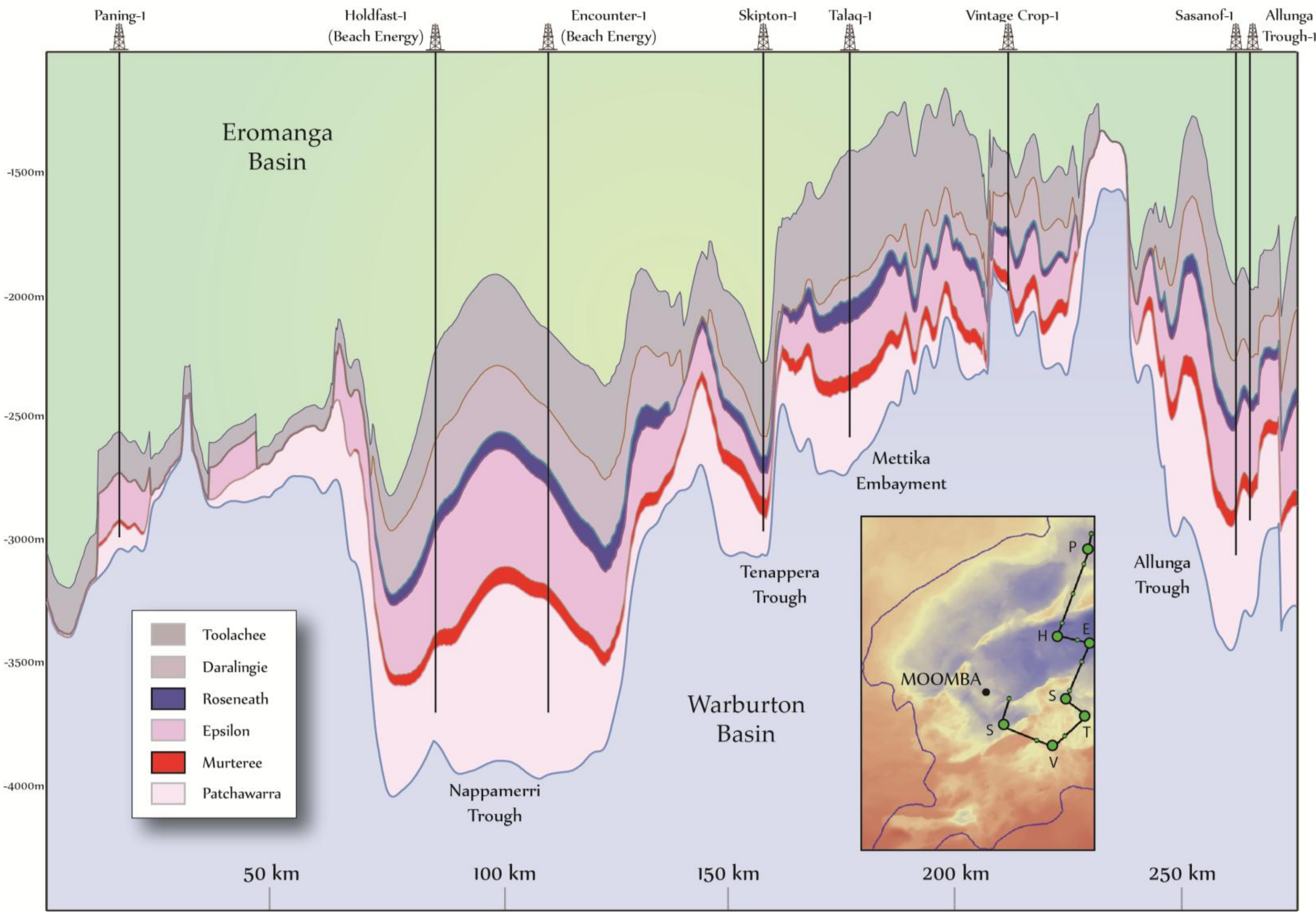
- Thick, mature Toolachee and Patchawarra coals

# Large operated acreage position in the Cooper Basin

- Senex has strong unconventional gas resource potential in both the south (centred on PEL 516) and north of the South Australian Cooper Basin



# SA Cooper Basin: a rich source for unconventional gas

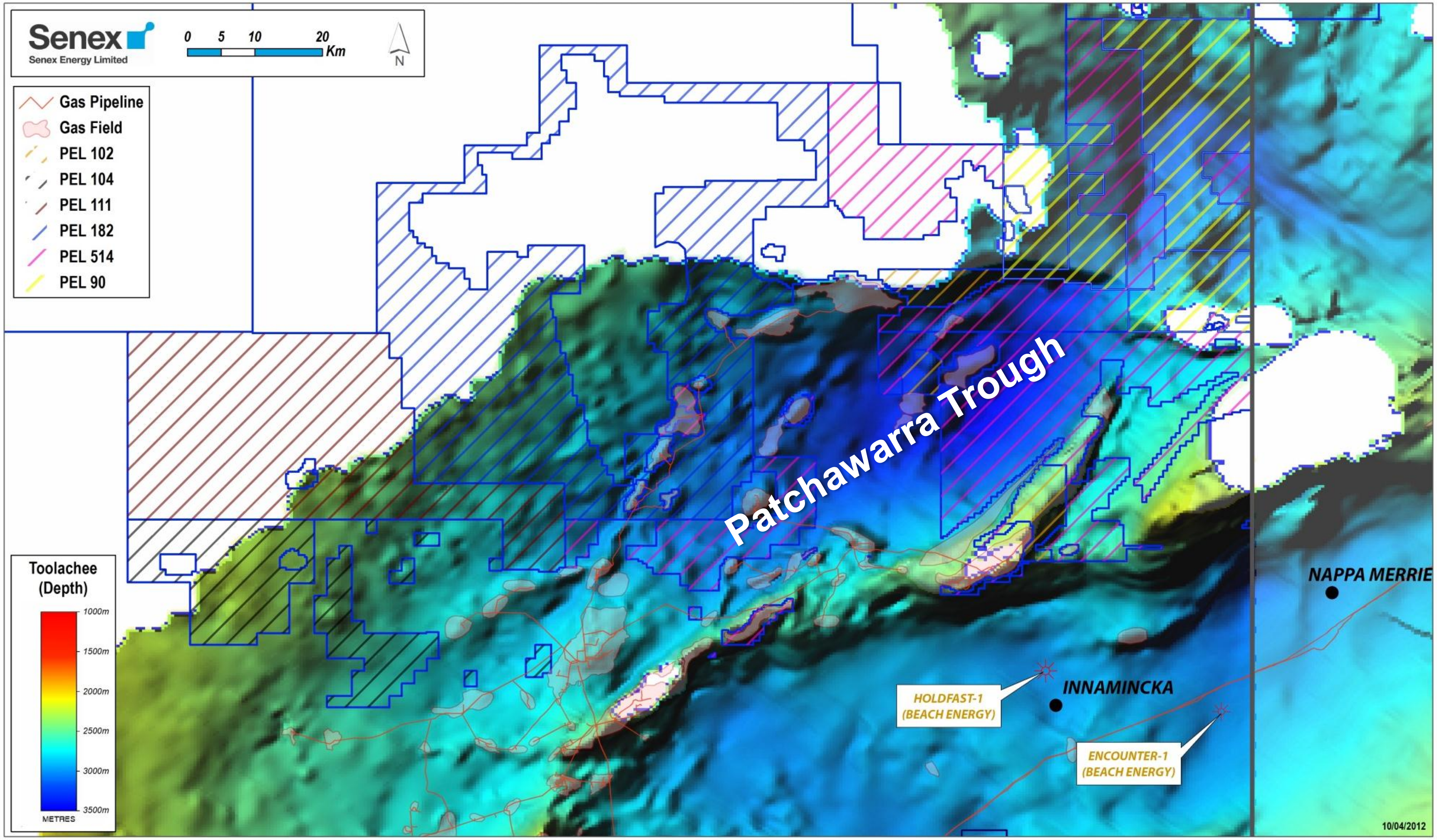



 South Australian Cooper-Eromanga Basin north-south cross section

**Source: DMITRE data, Senex interpretation**

# Senex northern acreage: Patchawarra Trough

- Good tight sand and shale potential with work at early stage




 South Australian Cooper Basin (north): depth to top of Toolachee Formation

**Source: DMITRE data, Senex analysis**

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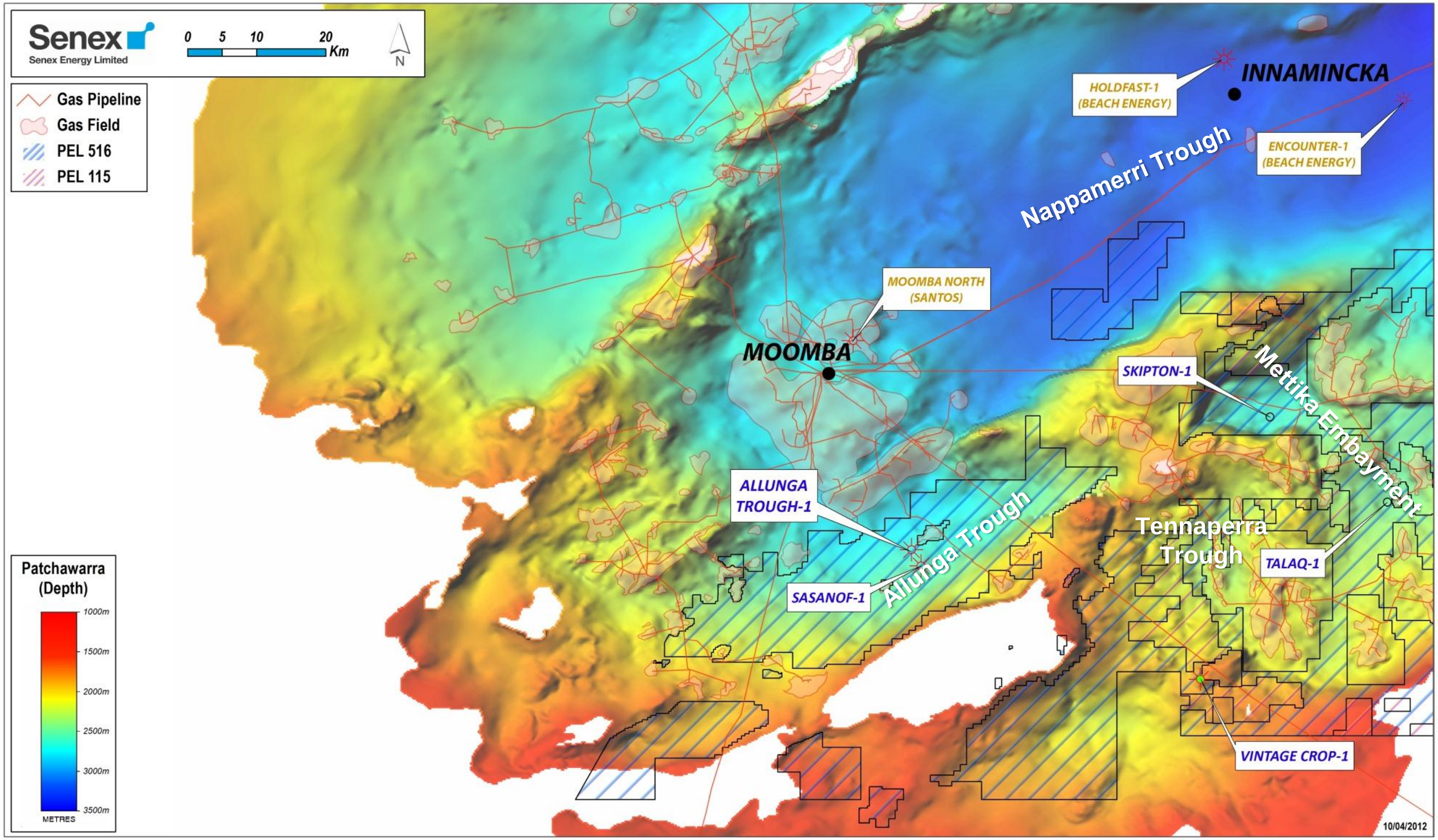
# Senex southern acreage: shallower target zones…

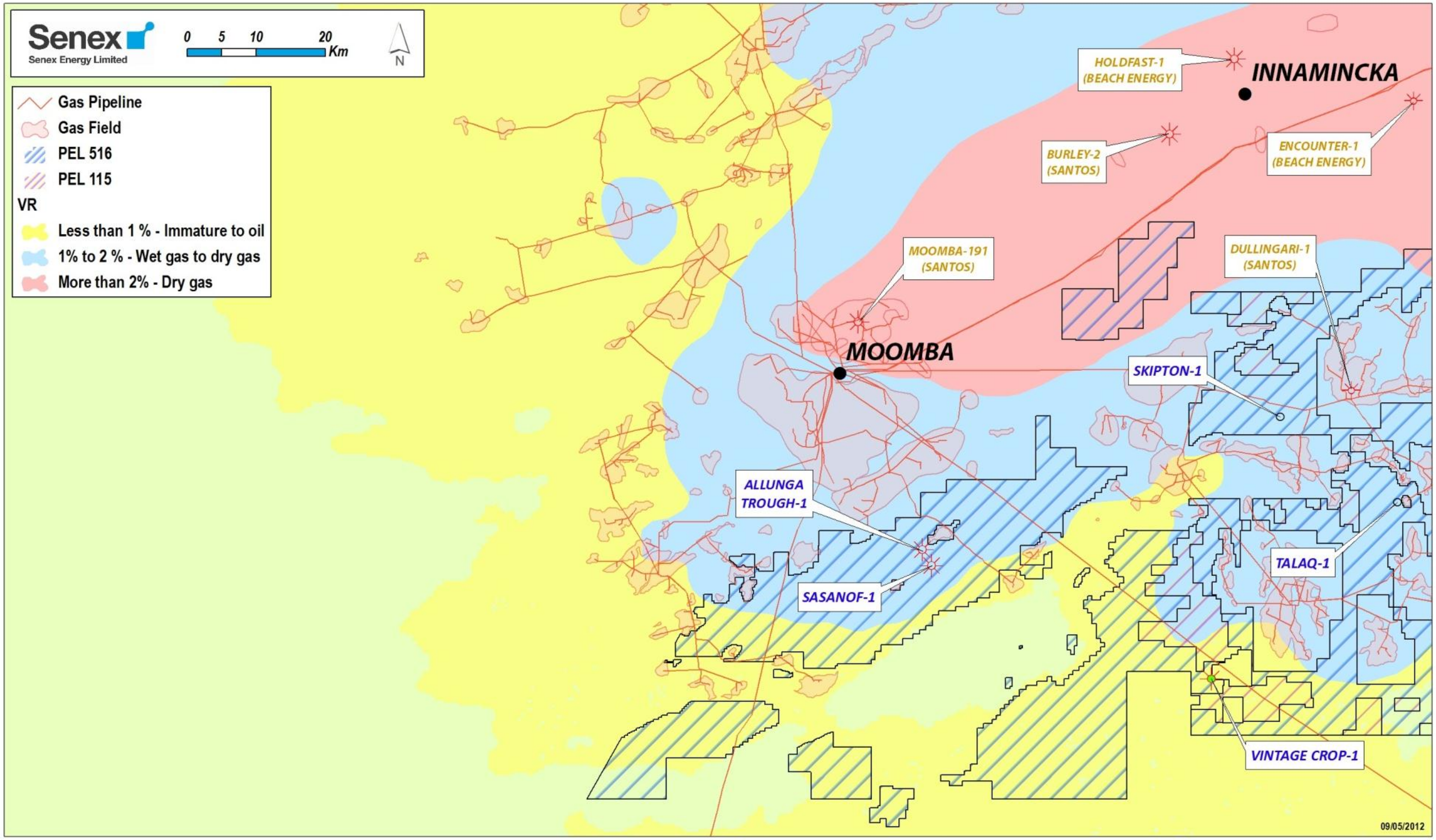



South Australian Cooper Basin (south): depth to top of Patchawarra Formation

**Source: DMITRE data, Senex analysis**

# …in the 'wet gas' window

- The production of condensate dramatically improves economics

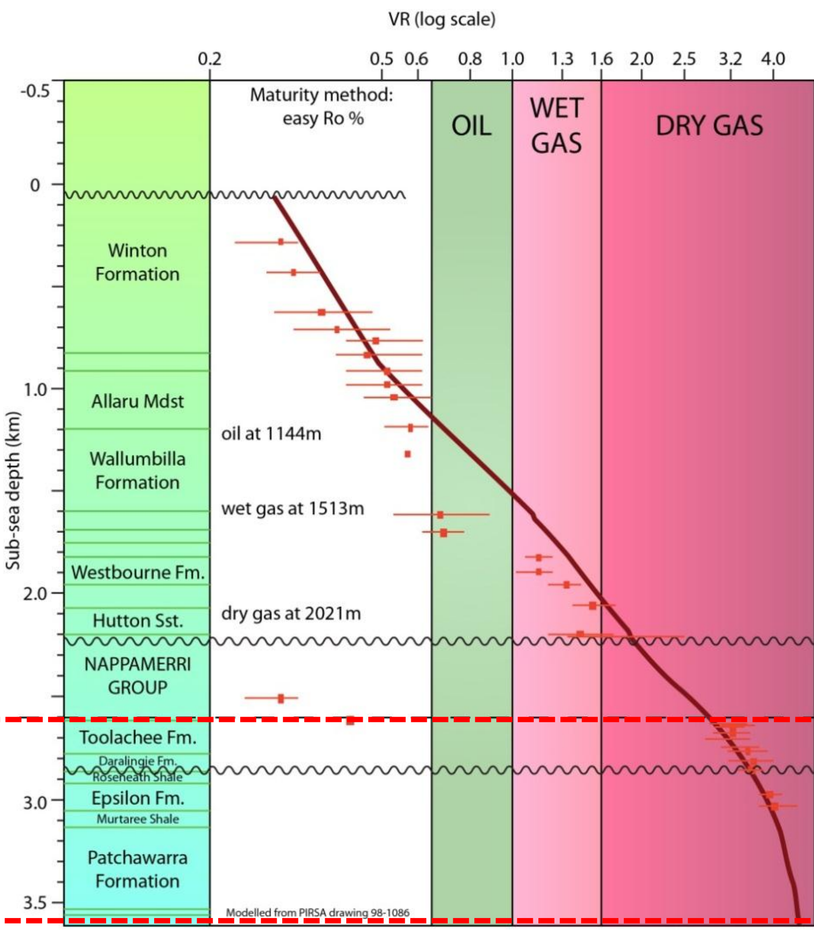



 South Australian Cooper Basin (south): thermal maturity

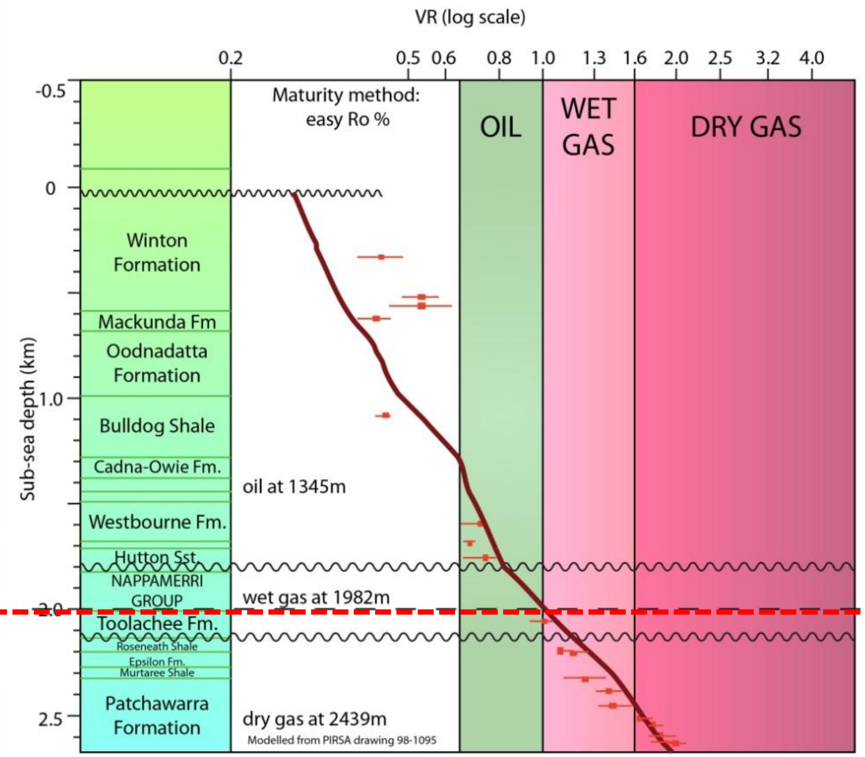
**Source: DMITRE data, Senex**

# Liquids potential of PEL 516 already demonstrated

Nappamerri Trough:
Burley-2 conventional gas well (1984)




Mettika Embayment (PEL 516)
Dullingari-1 conventional gas well (1962)




**Gas Target Zone**

Source: DMITRE



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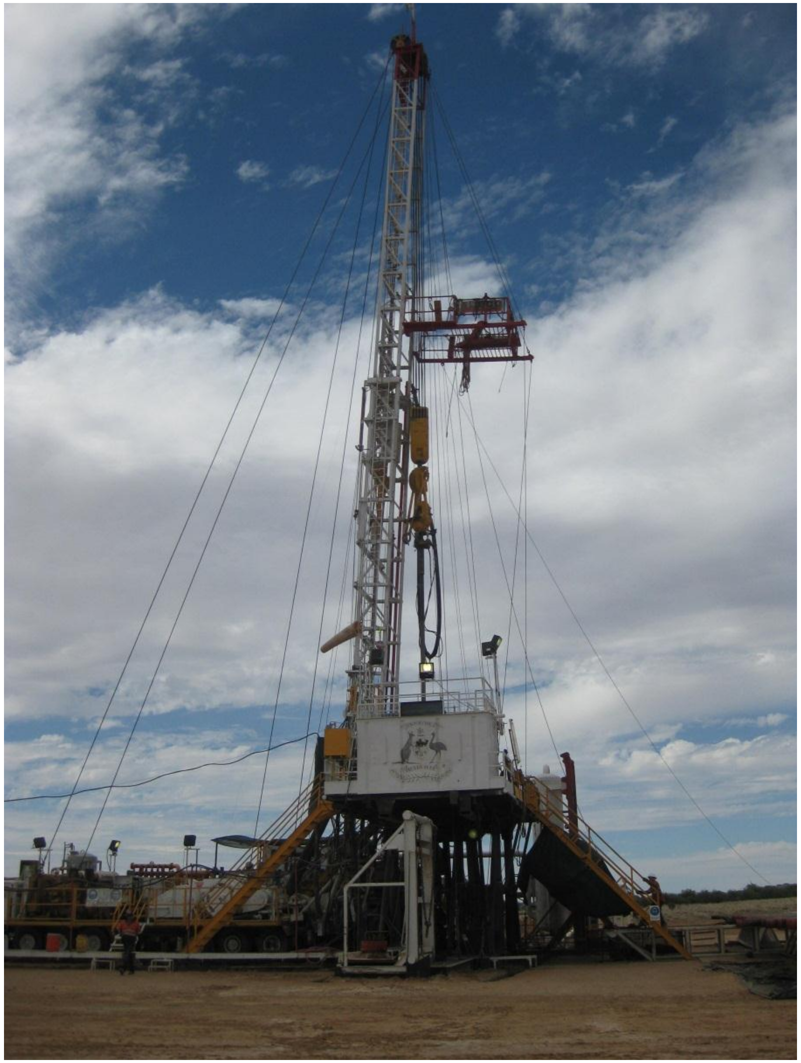
# PEL 516 program - excellent progress to date

Focused exploration program underway:

- Desktop studies undertaken on historic wells in surrounding area
- *Vintage Crop-1* – cored, full desorption analysis, rock mechanics and mineralogy testing
- *Allunga Trough-1* – diagnostic fracture injection testing
- *Sasanof-1* – drilled and fracture stimulated; awaiting flowback test results
- *Talaq-1* – drilled, currently being cased
- **Upcoming**:
  - *Skipton-1* (spudding July 2012)
  - *PEL 115 unconventional gas well*
  - *Talaq-1* fracture stimulation



Sasanof-1



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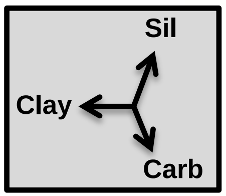
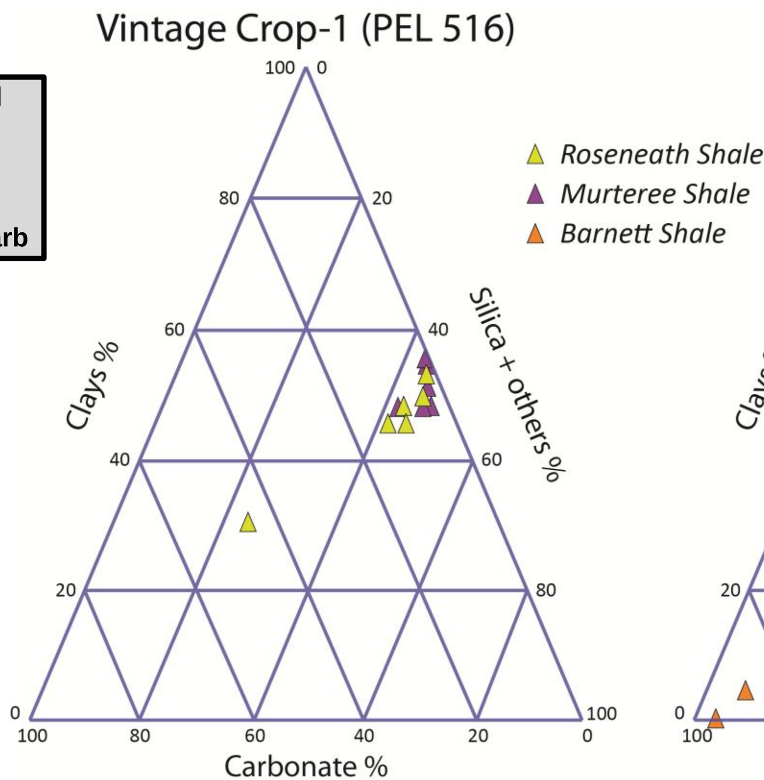
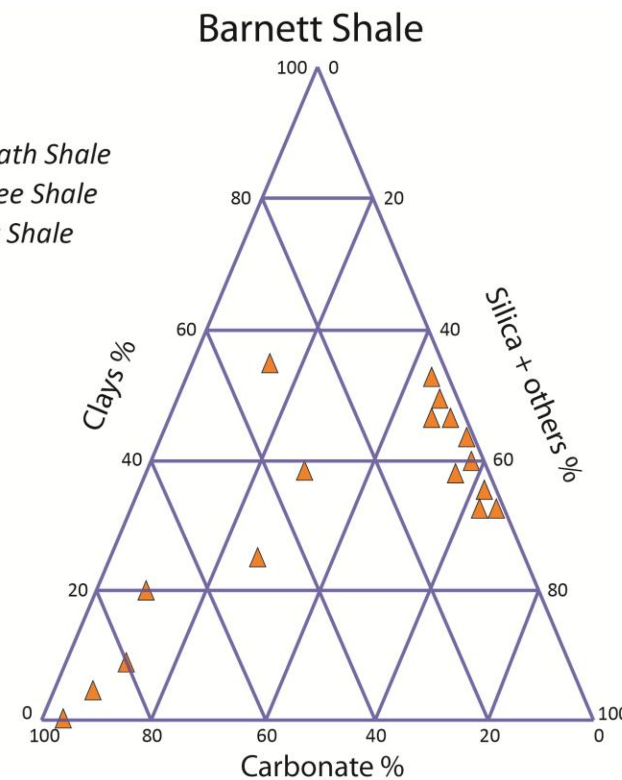
# Encouraging results from Vintage Crop shale

- **Vintage Crop** results received in full:
  - Gas content results positive and in line with expectations with liquids present: $C_2$ - $C_5$ identified in material quantities
  - Rock properties consistent with successful North American plays






Source: Vintage Crop – Senex analysis; Barnett Shale - US DOE National Energy Technology Laboratory 2011/1478

# Sasanof-1 flow testing underway

- **Allunga Trough** injectivity test completed
  - Successful fracture stimulation of Roseneath and Murteree shales
  - This “mini-frac” important for large-scale fracture stimulation design
- **Sasanof-1**, Senex’s first dedicated unconventional well, completed early April 2012 with promising results:
  - Gas shows evident across Epsilon and Patchawarra sands
  - Positive gas shows from desorption testing of shales and coals
  - Presence of heavy gases and condensates indicated by chromatographic analysis
- **Sasanof-1** large-scale fracture stimulation successfully completed
  - Fracture stimulation intervals in both Roseneath and Murteree shales
  - Two fracture stimulation intervals in Patchawarra tight gas sands
  - Flow back results expected by mid-June 2012



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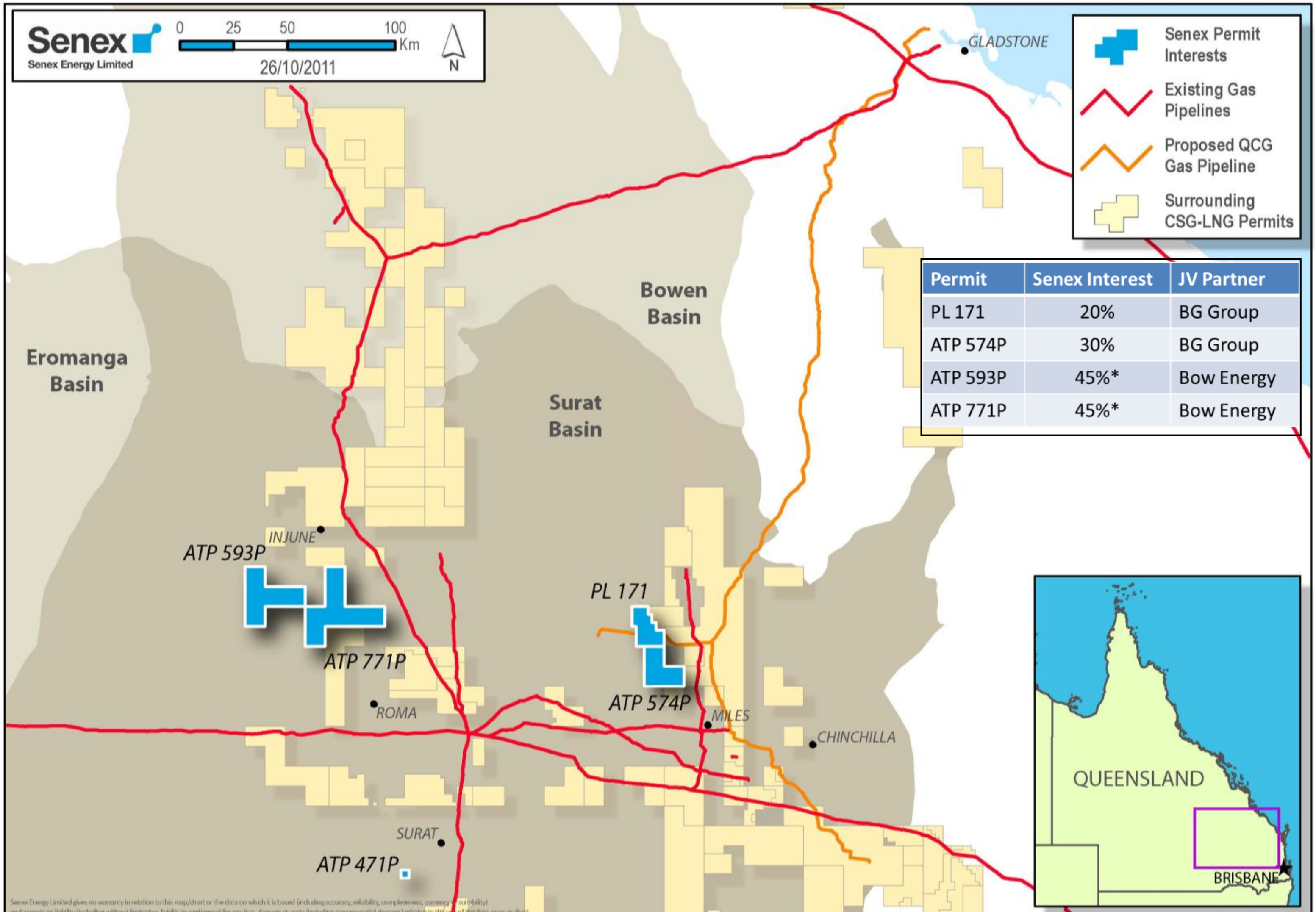
# Valuable coal seam gas business in Queensland’s Surat Basin

# Strategically located coal seam gas assets




| Permit | Senex Interest | JV Partner |
|---|---|---|
| PL 171 | 20% | BG Group |
| ATP 574P | 30% | BG Group |
| ATP 593P | 45%* | Bow Energy |
| ATP 771P | 45%* | Bow Energy |



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# Aggressive FY12 exploration and appraisal program

Material upgrades to 2P and 3P reserves achieved through FY12 work program:

**ATP 574P (Senex 30%) and PL 171 (Senex 20%):**

- Operated by QGC with active technical input from Senex
- Appraisal program focussed on 2P reserve additions and gas flow testing

**ATP 593P /ATP 771P (Senex 45%) with Bow Energy:**

- Operated by Senex
- Two core wells drilled in FY12, two more planned in June / July
- Continue to pursue 2P reserves coverage


Coal seam gas appraisal well being flared



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