



**Unique Leverage to Oil & Gas  
Exploration in the  
Otway Basin**

# Market Details

## Directors

**John Cornelius – Non-Exec Chairman**

**John Remfry – Managing Director**

**Roger Blake – Exploration Director**

**Garrick Higgins- Non-Exec Director**

**Incorporated**                      October 1999

**Floated (ASX:EPR)**              Feb 2001

**Head office**                         Melbourne

**No Shareholders**                 1250 approx

### Major Shareholders:

Cairnglen Investments Pty Ltd              21%

JP Morgan Nominees Aust Ltd              10%

Offshore    5%

Top 20 holding                                      63%

**Directors and Mgt holdings approx 8%**

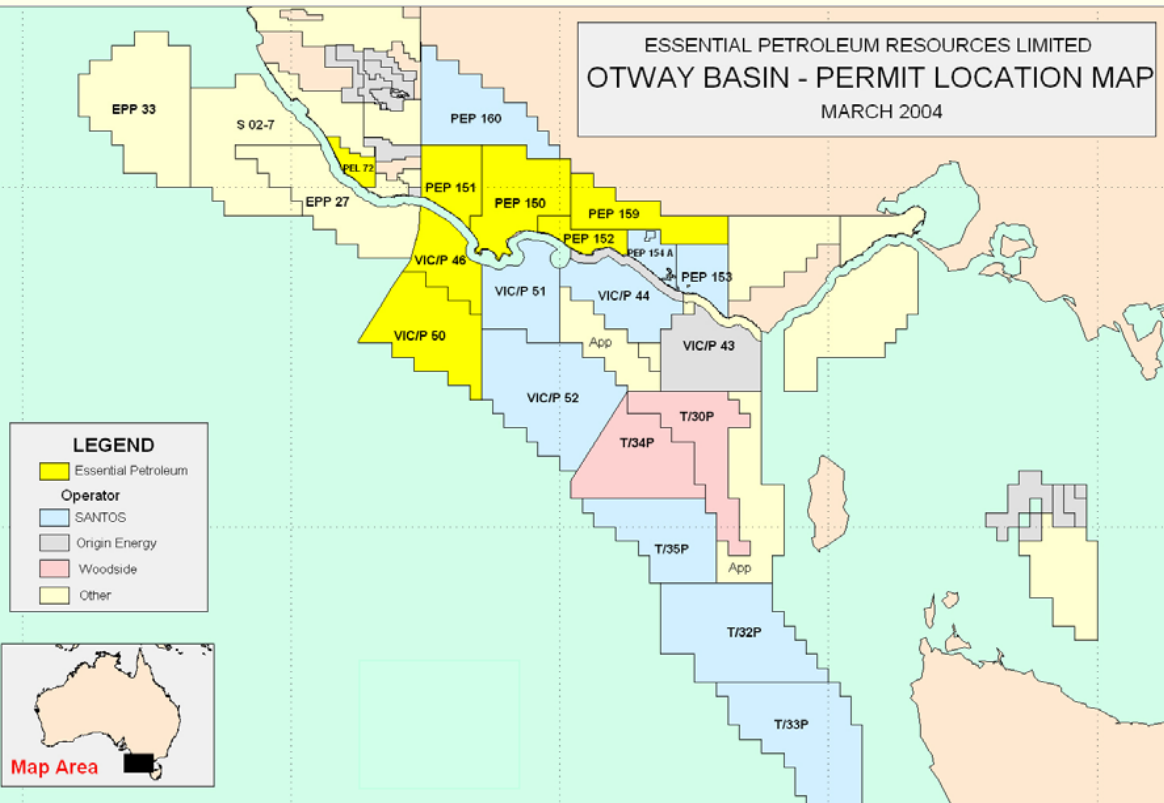


<b>Share price</b>	<b>.145c</b>
<b>Issued Capital</b>	<b>157M</b>
<b>Market cap.</b>	<b>\$23M</b>
<b>Cash</b>	<b>\$6M</b>



# Otway Basin – The New Frontier

ESSENTIAL PETROLEUM RESOURCES LIMITED  
OTWAY BASIN - PERMIT LOCATION MAP  
MARCH 2004



## Major players

- Santos
- Origin
- Woodside
- Essential

## Proven Hydrocarbons

- Recent onshore commercial gas discoveries
- Major offshore gas discoveries: Casino, Thylacine, Geographe
- Ideal geological setting to host vast hydrocarbon reserves
- \$150M and 8 wells committed for exploration over next 2 years

## Key Attributes

- Gas producing basin but lightly explored.
- Oil has been recovered – Lindon, Windamere, Port Fairy
- Proximity to large domestic gas markets
- Deregulated energy industry in a fast growing region



# Margins

## OIL - Gross Profit

Onshore (5-50mmbbls) > \$25 per bbl

Offshore (100-250mmbbls) > \$10 per bbl

## GAS - Gross Profit

Onshore (10-100 bcf) > \$0.75 per gj

Offshore (300-1000 bcf) > \$0.65 per gj

### Assumptions:

Oil price of \$US35 per barrel and \$1AUD = \$0.75US equates to \$AUD46.60 per barrel

Onshore production and transport costs of \$AUD8 per barrel

Gas price of \$AUD2.90 per gigajoule

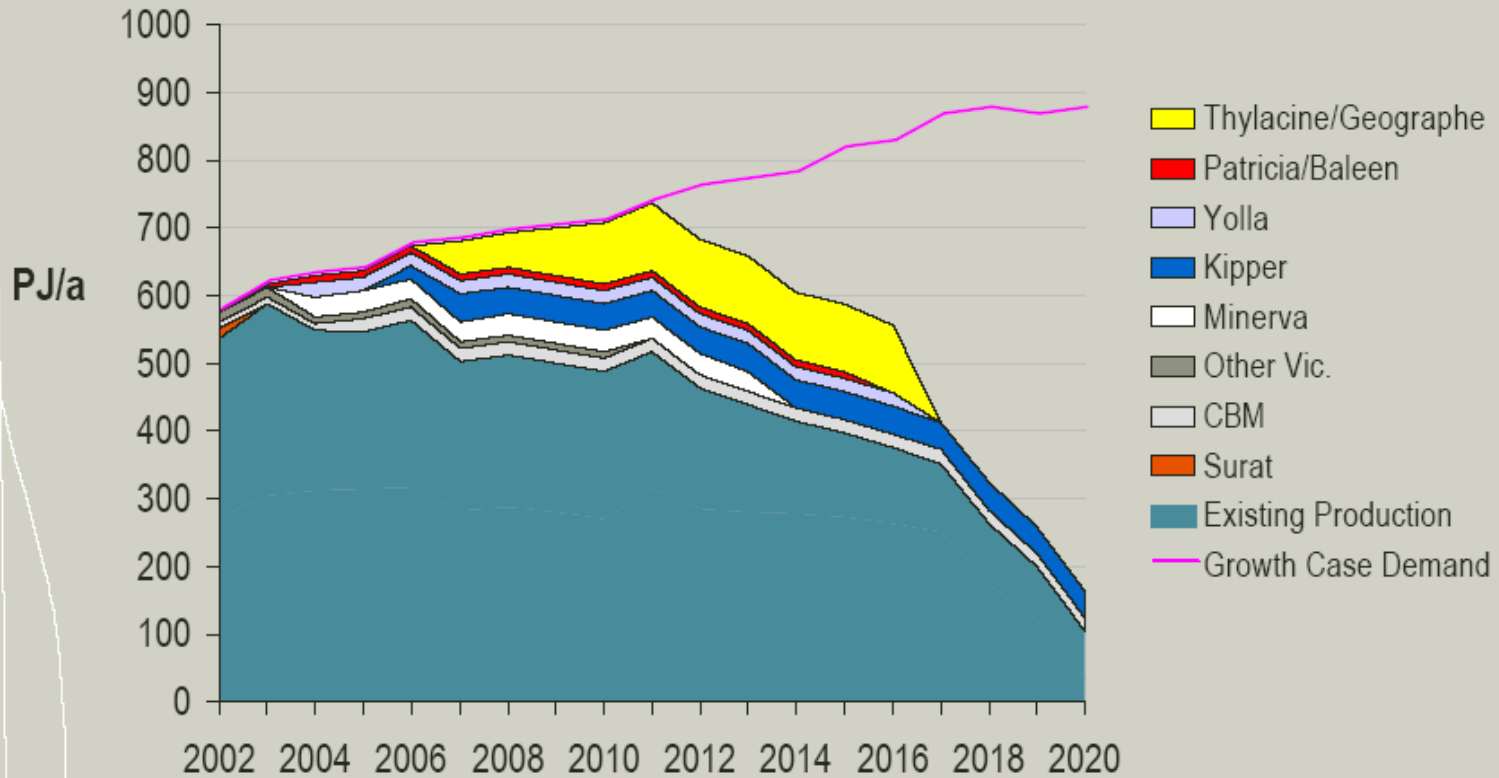
Offshore Oil Case – FPSO, Offshore Loading

Offshore Gas Case – Platform, Onshore Facilities



# BHP-Billiton Supply & Demand Growth Case

## Eastern States Supply & Demand – Growth Case



Source: BHP Billiton

Petroleum – Eastern Gas

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# Growing Interest in the Otway Basin



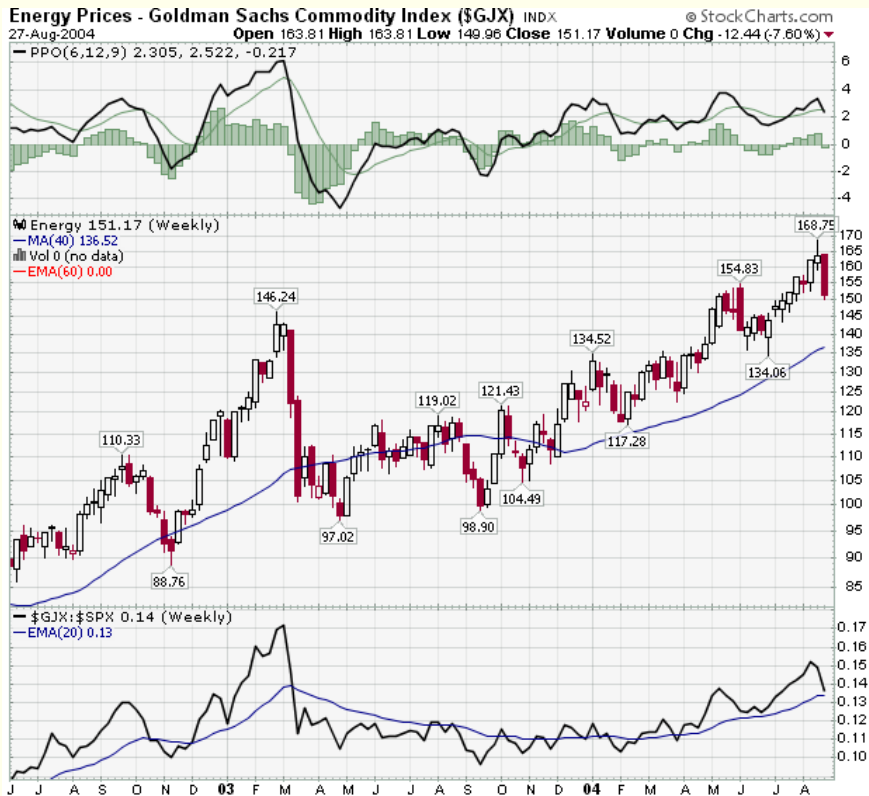
# Otway Basin Activity

## Onshore Activity

Essential drilling 2 exploration wells planned for Q1-05

Targets are:??

Potential recoverable is??



## Offshore Activity

6 exploration and 2 appraisal wells planned in the next 12 months.

Santos drilling the Cape Bridgewater High at Callister looking for Oil and Gas Oct-Nov

Santos drilling Continental Slope Play in deep water at Amrit looking for Oil following Callister

Santos drilling 2 wildcat wells in VIC/P44 and 2 Casino appraisal wells

Woodside drilling 2 wells NW of Casino

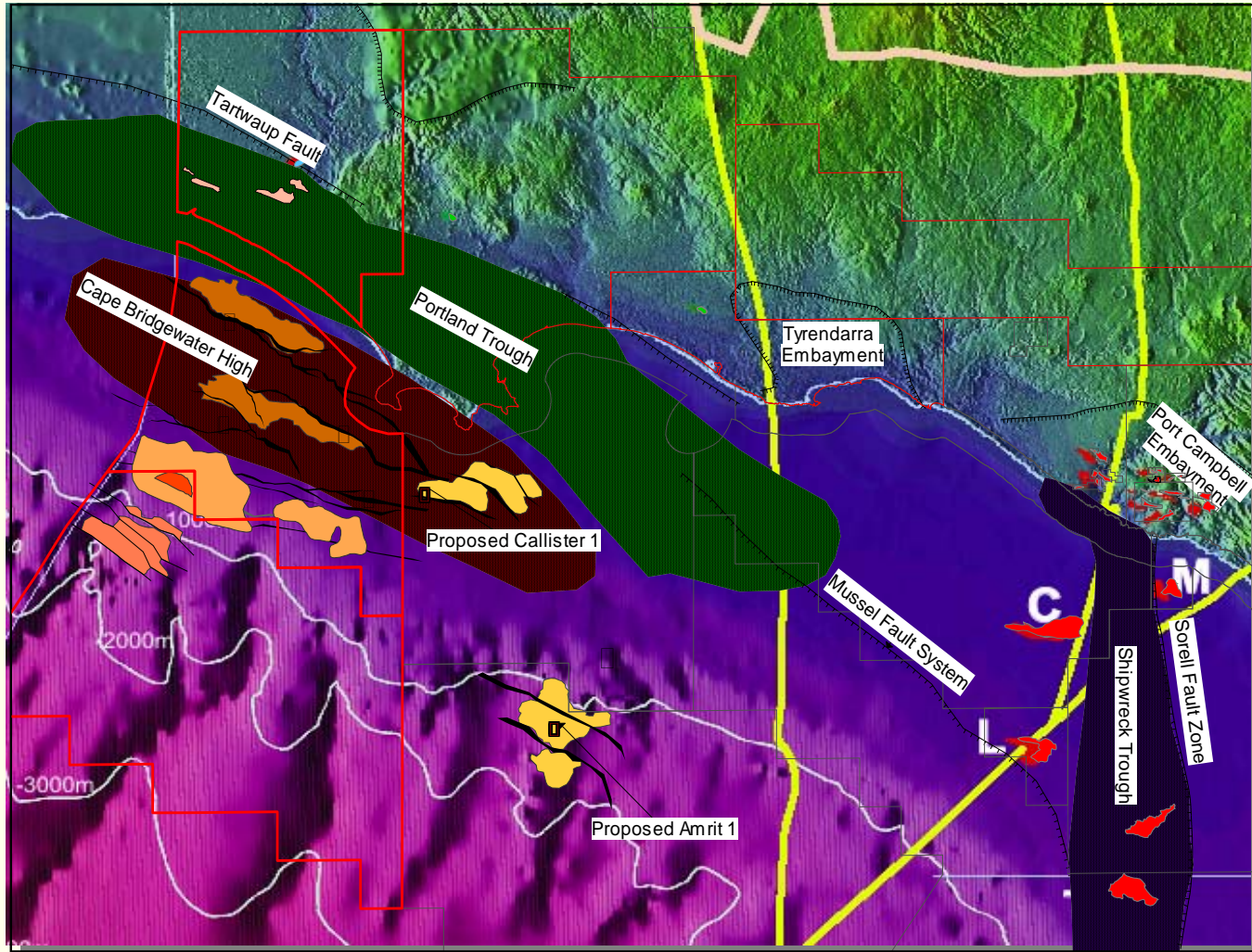
Santos 2D and Seismic Survey

Essential 2D Seismic Survey

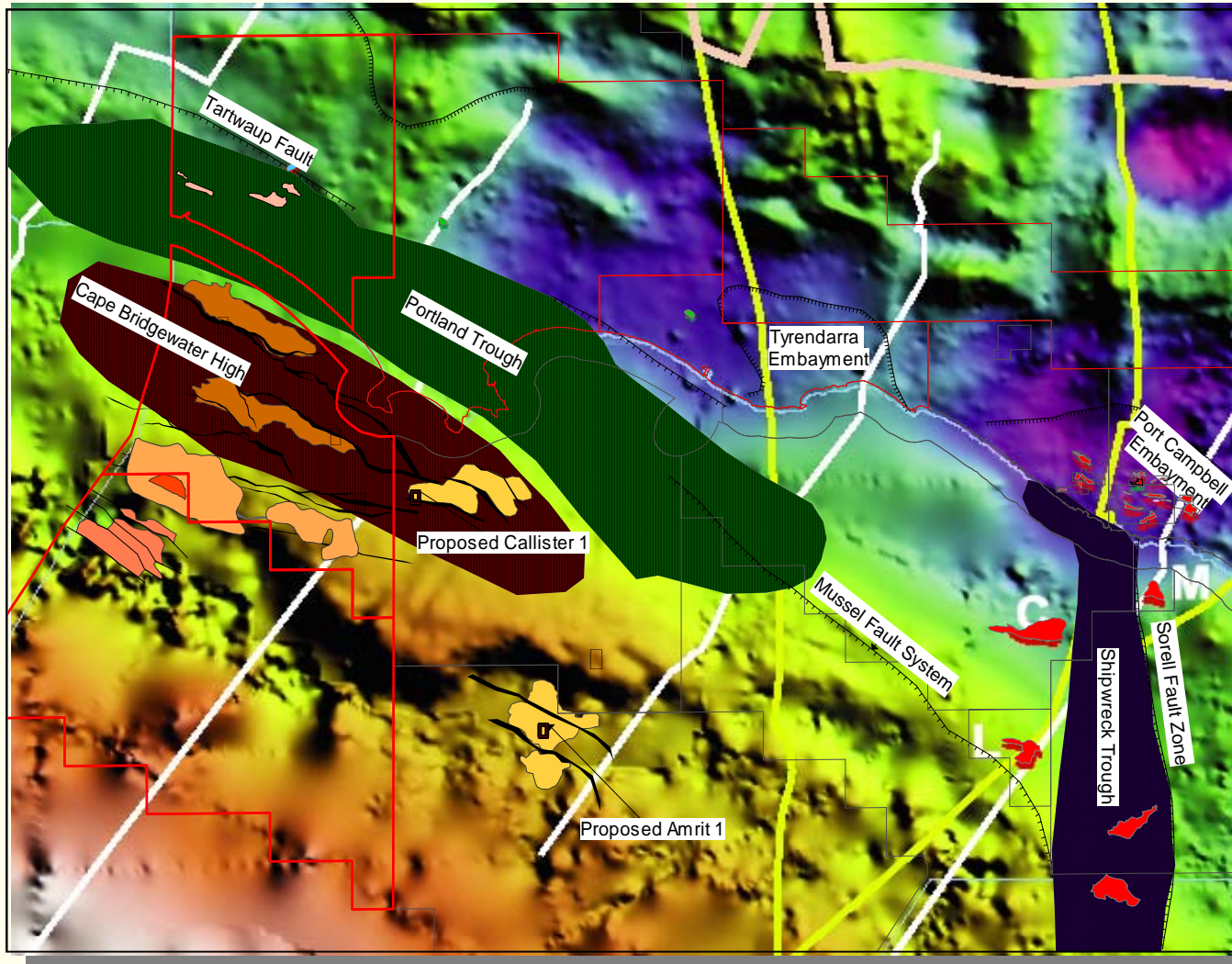
Woodside 3D Seismic Survey



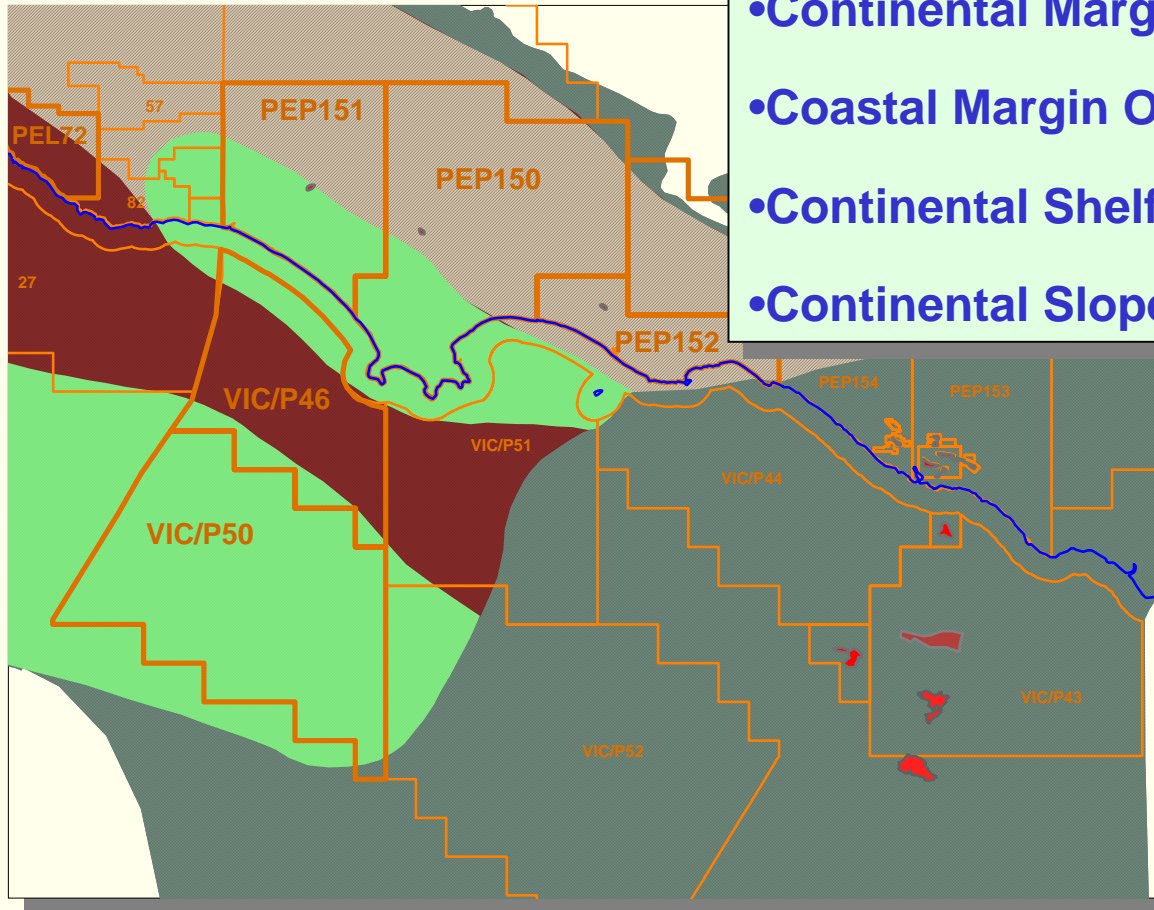
# Prospects and Water Depth



# Prospects and Basement Structure

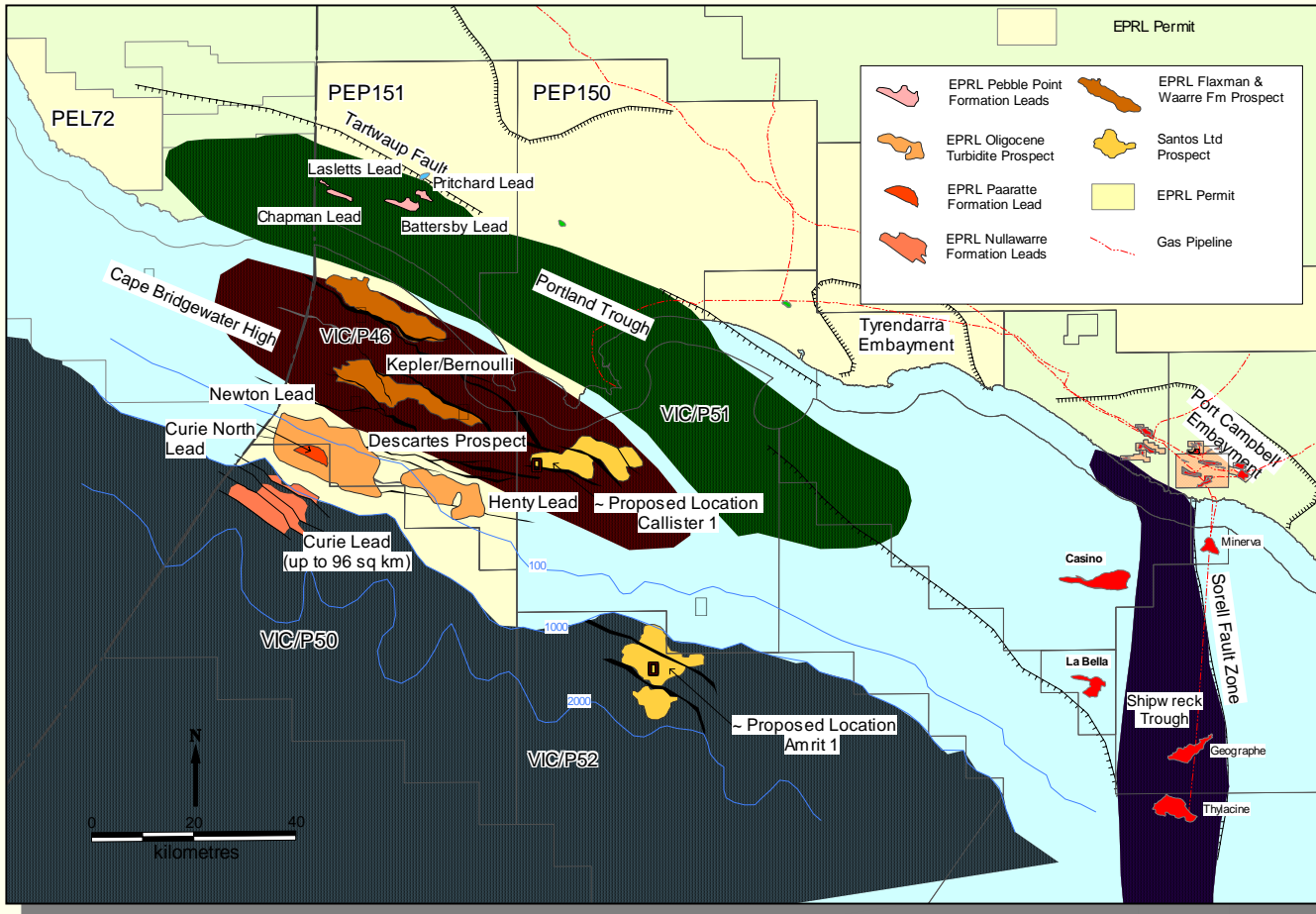


# Oil and Gas Play Fairways



- Continental Margin Oil & Gas Fairway
- Coastal Margin Oil Fairway
- Continental Shelf Gas Fairway
- Continental Slope Oil Fairway

# Prospects and Structural Control



Four independent play types have been extensively mapped

Flaxman/Waarre and Nullawarre gas plays have combined potential in excess of 8 tcf

Oil resource potential of at least 1 billion barrels from the Oligocene turbidite play on the shelf edge is possible



# Commodity Pricing



- Energy prices throughout the world have been rising for several years.

- It is thought that the world has entered a new phase of higher global energy prices for the foreseeable future.

- Essential is well positioned to leverage from this phenomenon through exploration success.

