

Investor update

1 September 2014



Dear Shareholders,

I am pleased to provide shareholders with the following presentation that we will be providing to investors in London, Hong Kong, Melbourne and Sydney over the coming two weeks.

The significant new oil discovery made in the Phoenix South-1 well is a defining moment in the Company's history, and provides us with a genuine opportunity to create something remarkable.

Firstly, news of this discovery has gone global, and we are looking to promote the news of the discovery to as many global funds and potential investors as we can in the next fortnight. We are also coordinating our messages with our joint venture partners to ensure a consistent and conservative story is presented.

Secondly, this discovery potentially opens an entirely new oil province on Australia's North West Shelf. A province is defined as an area or region that has the potential to host multiple oil fields. When you compare the relative size and amount of exploration conducted on the neighbouring Carnarvon and Browse Basins, which sit either side of our discovery in the Offshore Canning Basin, and you consider the significant investment Woodside is making in neighbouring permits within the Offshore Canning Basin, you start to appreciate the enormous exploration and development potential of this new province.

Thirdly, we are focused on generating a return for our shareholders by maximising the value of our assets. In this regard we are adopting a very prudent and commercially conservative approach to our capital structure, cashflow and balance sheet. We want to be in a sound financial position to continue to participate in future wells, and ensure they maximise the return on our investment.

Fourthly, we are still at a relatively early stage in determining the commercial viability of the Phoenix South-1 well, and we won't have a good understanding of the potential quantity of recoverable oil in the Phoenix South structure until the end of 2014. What we do know is that the quality of the oil discovered at Phoenix South-1 to date is excellent. What we have is light crude oil that is highly desirable because it is cheaper to extract than gas, cheap to refine and attracts a better price at market than heavier crude oil.

As we have already announced to the ASX, the Phoenix South-1 well discovery has been a catalyst for our Joint Venture partners Apache Northwest Pty Ltd and JX Nippon to confirm their commitment to drill the Roc well in 2015. The Roc well, which is intended to be the follow up well to the Phoenix South-1 discovery well, will be funded by Apache and JX Nippon to a value of US\$70 million, leaving Carnarvon with a 20% carried interest in WA-437-P. Apache has also exercised its option to acquire a 40% interest in WA-436-P and WA-438-P. Apache will assume operatorship of these permits and Carnarvon retains a 30% interest. These two actions provide certainty for the years ahead.

Finally, we are focused and hard at work preparing for our next success.

These are exciting times, and the significance of our discovery at the Phoenix South-1 well cannot be under-estimated, but at the same time we know we still have a long way to go before we see our broader strategy come to fruition. By the end of this year, we should know the size of the recoverable oil volumes at Phoenix and that will help us quantify the value of this discovery for the market. Until then, we have work to do and we are getting on with it.

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Yours faithfully



Adrian Cook
Managing Director
Carnarvon Petroleum



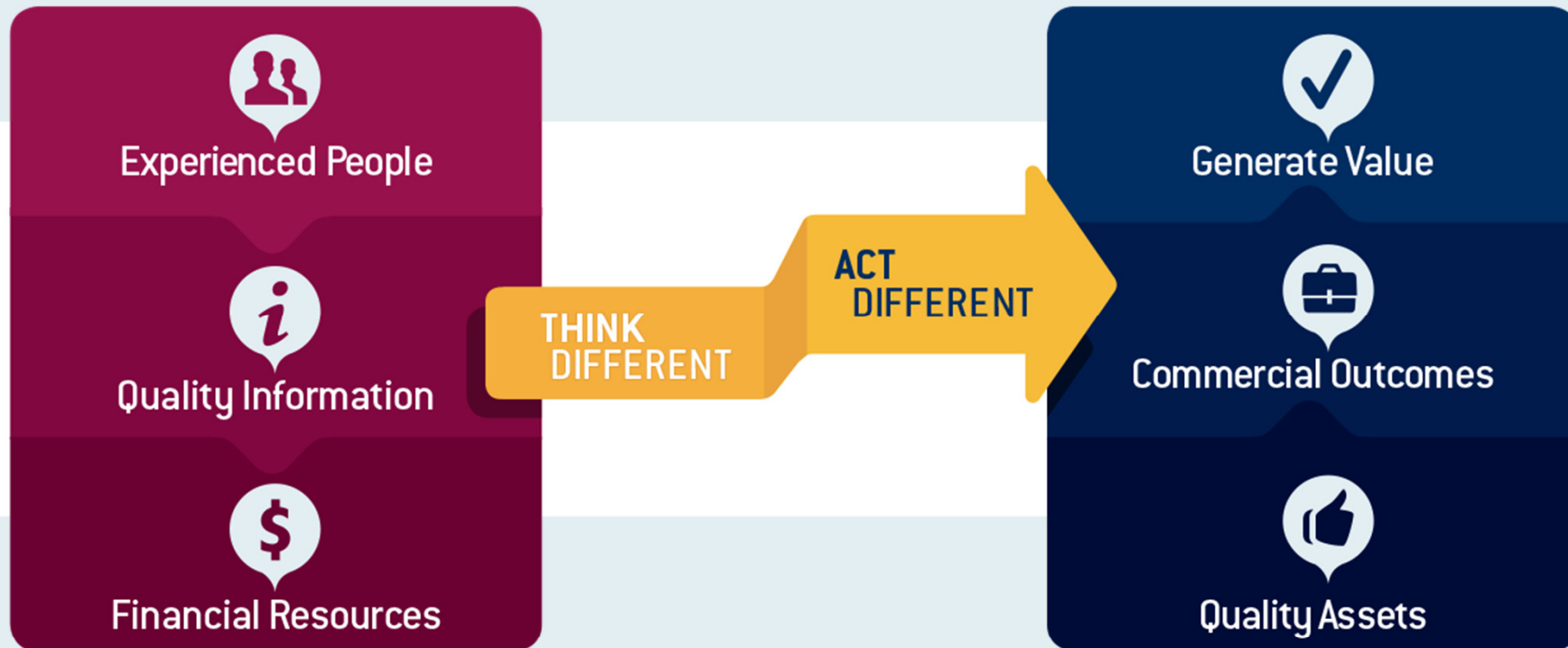
CARNARVON
PETROLEUM LTD

ASX: CVN

Investor update

September 2014

Creating Something Remarkable



Experienced People Aligned With Shareholders



Robust Financial Position

\$



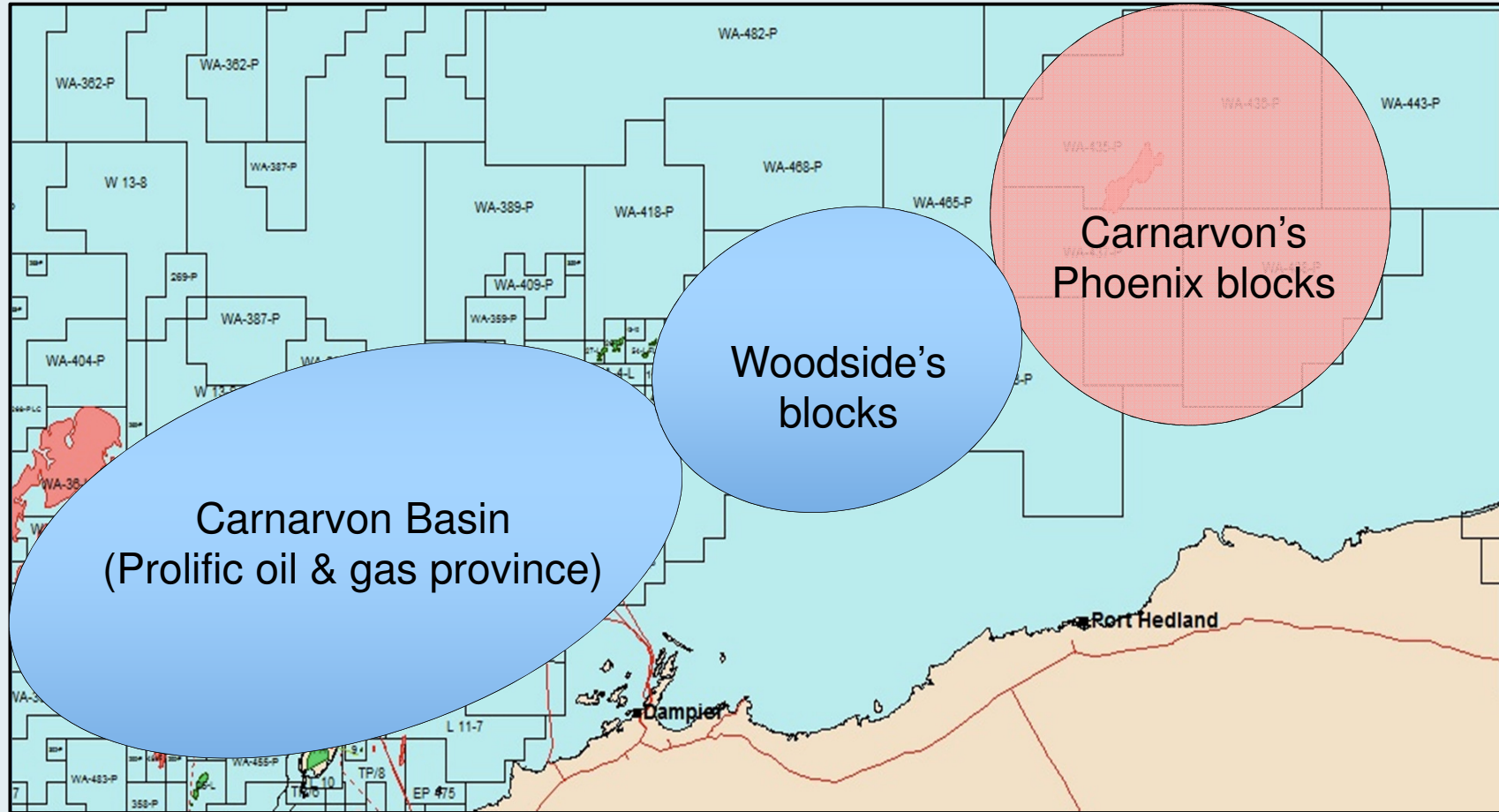
1. Comprises an undiscounted receivable of up to US\$32m converted to AUD at A\$0.90/US\$.



**Major Oil Discovery
Phoenix South-1 Well**

**Offshore Canning Basin,
Western Australia**

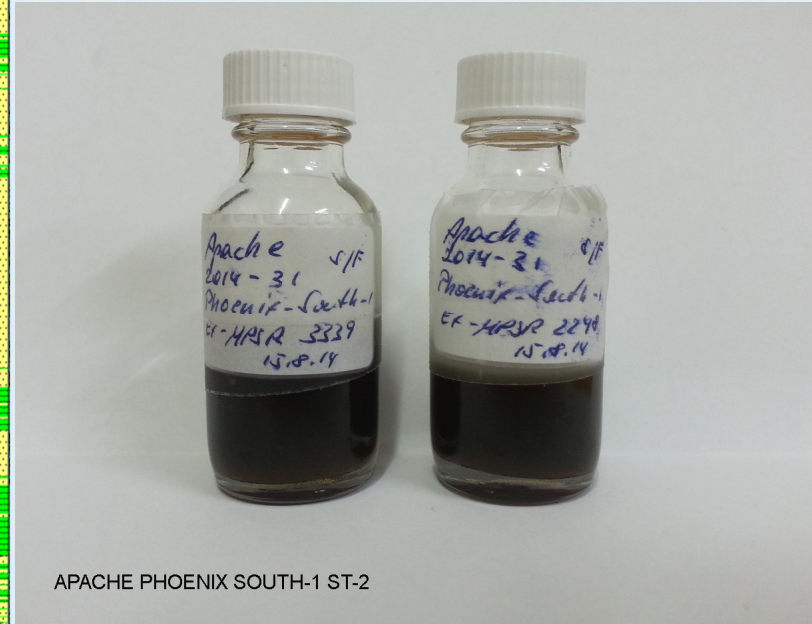
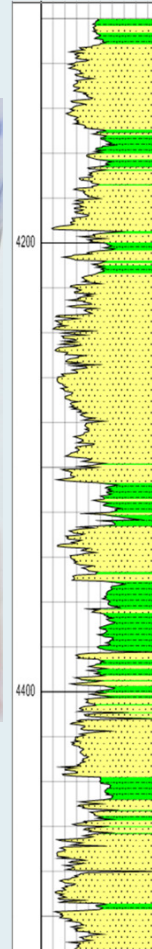
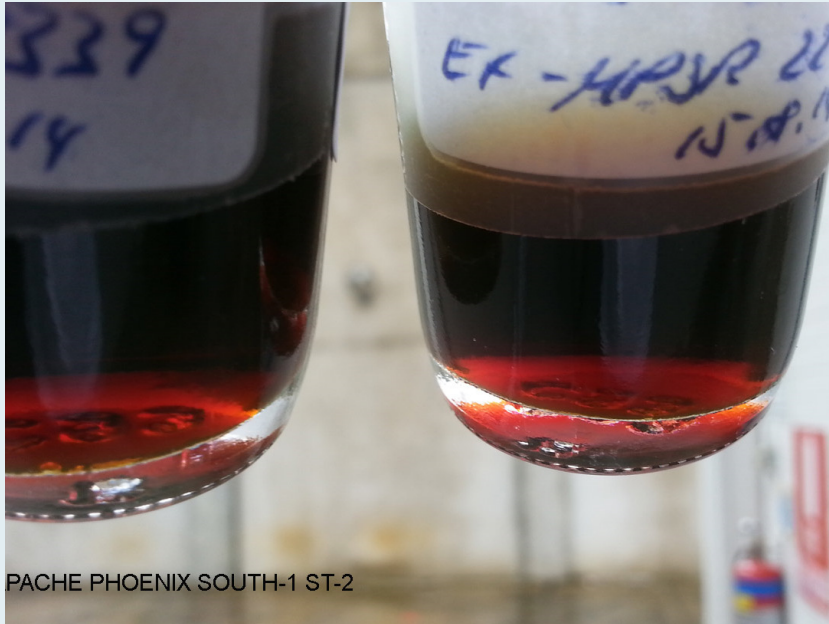
Strategic Location of Significant Scale



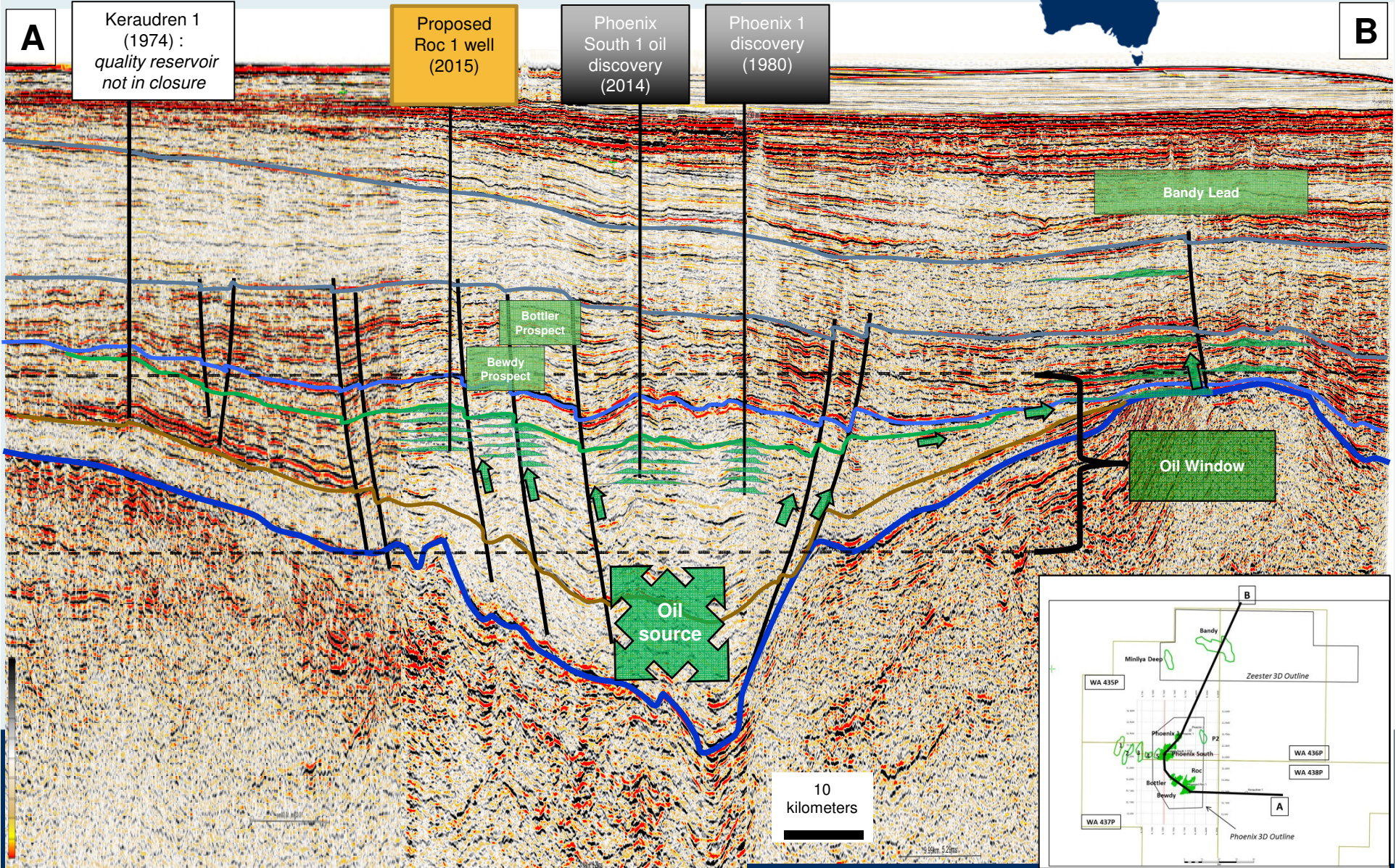
Major Oil Discovery in First Well



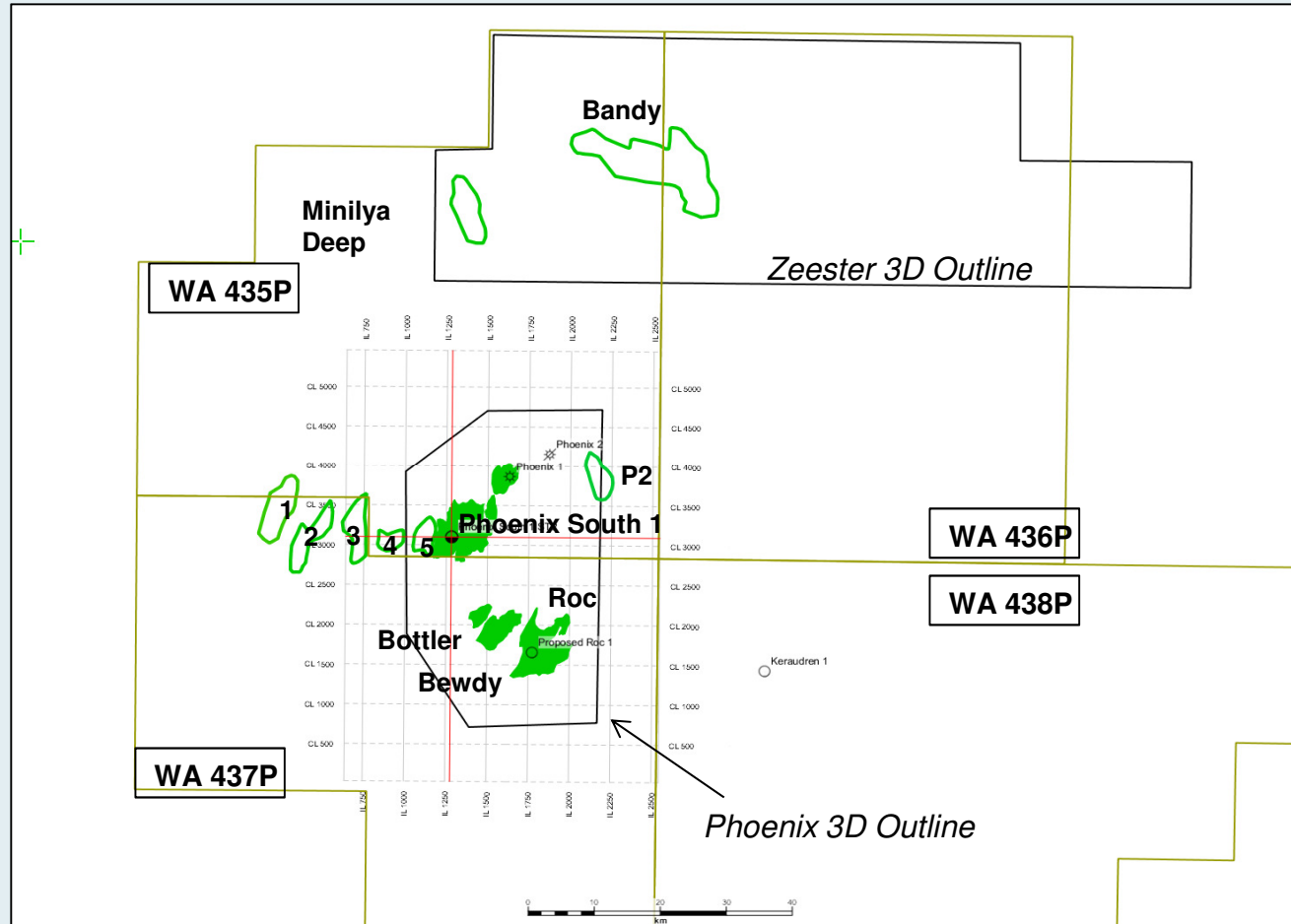
Phoenix South Light Oil Recovered



Emerging New Oil Province



Multi-field Potential in New Oil Province

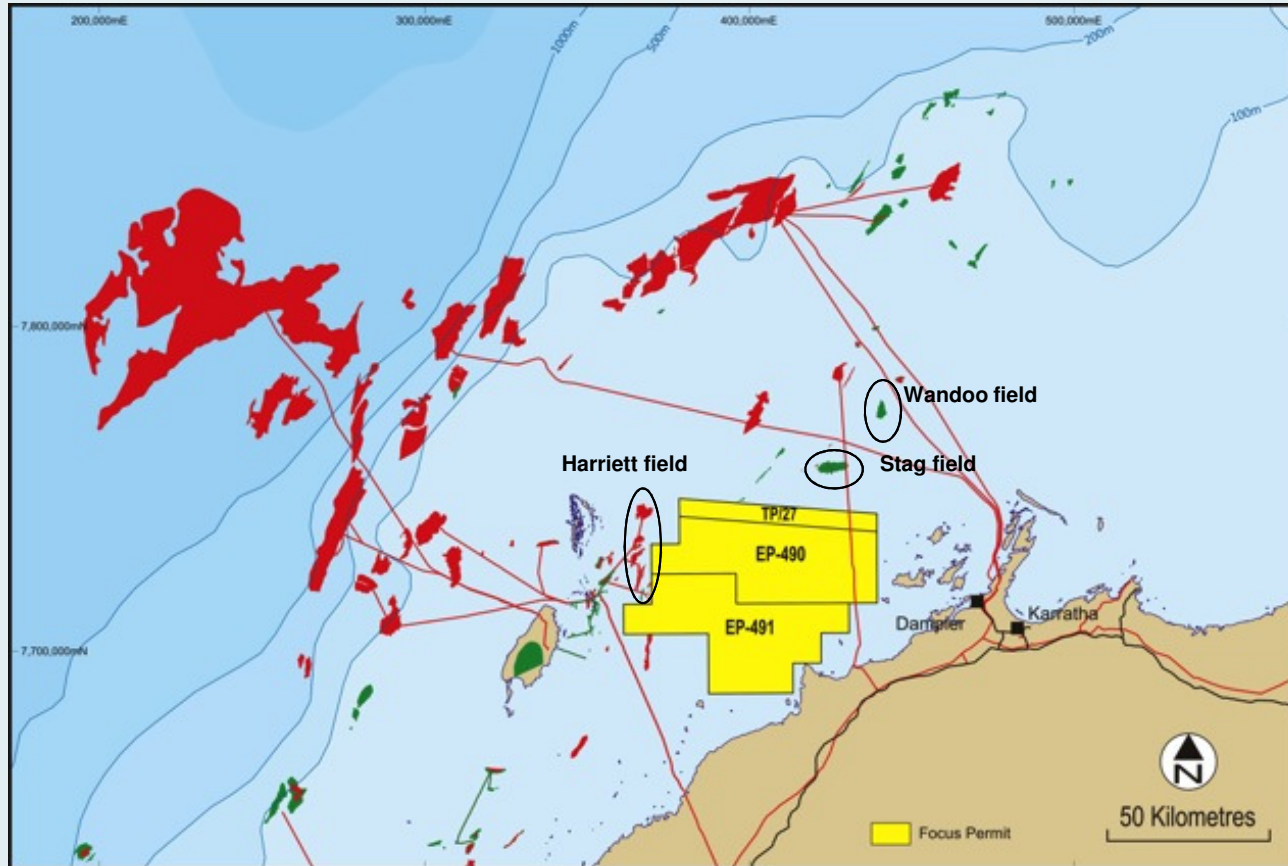




Cerberus: The Next Wave

**Carnarvon Basin,
Western Australia**

Strategic Location of Significant Scale



 Existing oil fields or discoveries

 Existing gas fields or discoveries

Drill Ready Prospects Target Multiple Play Types





Production from Onshore Assets

Phetchabun Basin,
Central Thailand

Thinking Differently in Thailand



1. Includes an undiscounted receivable of up to US\$32m converted to AUD at A\$0.90/US\$.

Active Oil Production Asset With Upside



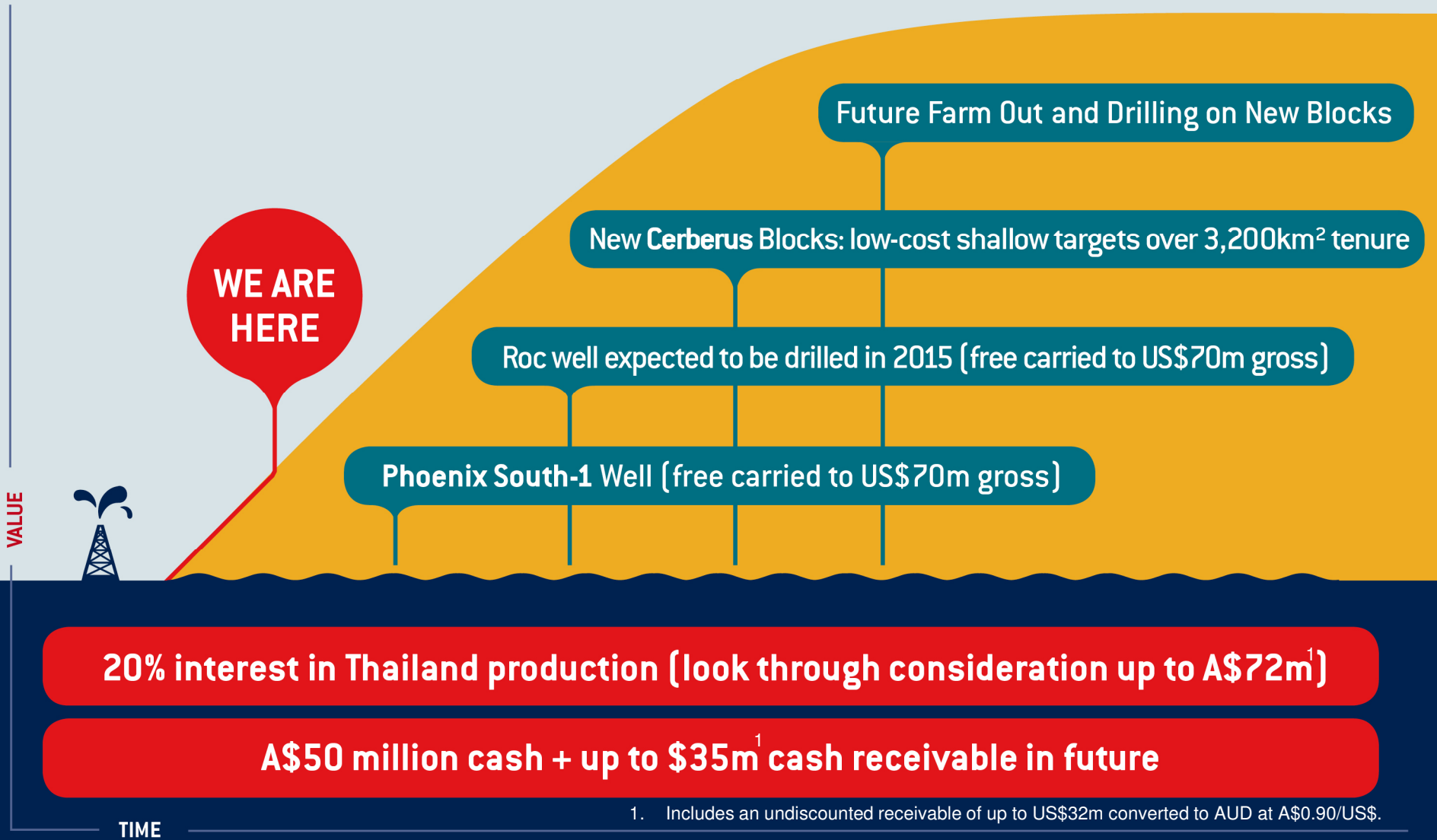
**Producing ~4,000
bopd gross**

**30 million barrels in oil
reserves gross (2P)**

*(refer to reserve update announcement on
31 March 2014)*



Simplifying the Value Proposition



Disclaimer



The information in this document, that relates to oil exploration results and reserves, is based on information compiled by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the Company. Mr Huizenga consents to the inclusion of the reserves and resource statements in the form and context in which they appear.

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Think different
Act different

Addendum

Addendum 1: Key Highlights



- Major oil discovery at Phoenix South-1 well in Western Australia (CVN:20%);
- Apache & JX Nippon commit to drilling Roc well in Western Australia, expected in 2015 (CVN:20%);
- Apache acquire 40% interest and operatorship in WA-436-P and WA-438-P in Western Australia (CVN:30%);
- Materially increased oil production in Thailand to ~4,000 bopd gross (CVN:20%);
- Divested half of Thai oil production asset for:
 - US\$33m cash; and
 - US\$32m receivable;
- Farm-out process of Cerberus project in Western Australia ready to commence (CVN:100%)

Addendum 2: Corporate Snapshot



Closing share price and volume over 12 months for ASX:CVN

- Issued shares 987m
- Share price (ASX:CVN) 25c¹
- Listed options (ex 10c) 49m
- Option price (ASX:CVNO) 15c¹

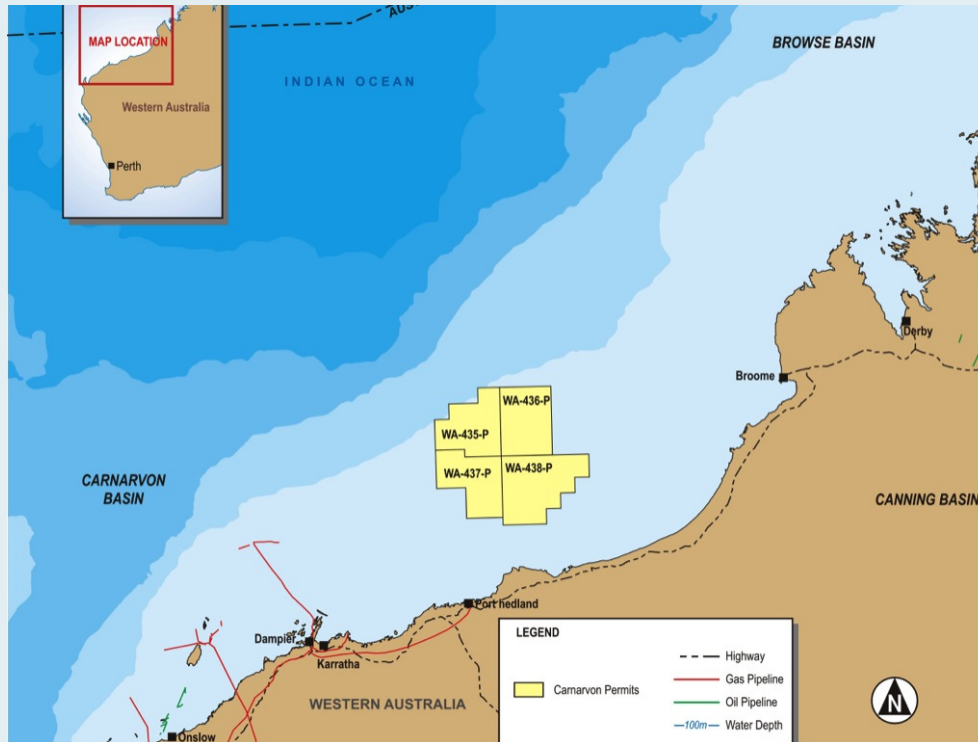
- Market Cap A\$245m
- Cash A\$50m²
- Debt nil
- Enterprise value A\$195m

- Receivable (up to) US\$32m
- 20% in Thai oil production
- Phoenix oil discovery (NWS)
 - Plus surrounding acreage
- Cerberus acreage (NWS)

1. As at 27 August 2014

2. Cash as at 30 June 2014

Addendum 3: Snapshot of Phoenix Blocks



- Carnarvon's equity interests
 - 20% in WA-435-P & WA-437-P
 - 30% in WA-436-P & WA-438-P
- 4 blocks cover ~21,820km²
- Water depth <200m
- 3D seismic coverage
 - Phoenix 3D is ~1,100km²
 - Zeester 3D is ~3,800km²
- Key prospects / leads¹ (closure km²)
 - Roc prospect (2015 drill) (~60km²)
 - Bandy lead (~130km²)
 - Bewdy / Bottler prospects (~30km²)
 - Manilya deep lead (~30km²)
- Phoenix South-1 is ~180km from Port Hedland

1. Pre Phoenix South-1 remapping

Addendum 4: Phoenix South-1 Snapshot



- Well drilled in exploration permit WA-435-P in ~138m of water
- Carnarvon's interest in the permit is 20%
- At least four discrete oil columns were intersected
- Six oil samples were recovered from three intervals
- Oil columns occurred within an overall sand-rich section between 4160 and 4595 metres Measured Depth
- API gravity is estimated at 46 to 48 degrees
- Estimated porosities range from 6% to 8% in clean sands
- Estimated net pay interval is 66 metres
- Maximum closure is approximately 46km² subject to remapping following Phoenix South-1 well result
- Preliminary estimate of in place oil is up to 300 *mmbbls* (refer Operator's press release of 18 August 2014)
- **Clarification of the potential resource is expected in the coming months as core and well log analysis is completed**