

Karoon Gas Australia Ltd



# Mining & Exploration Conference

## 16-17 July 2015



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*Production Testing at Echidna-1  
Queiroz Galvão "Olinda Star" Semi Submersible Drilling Rig*

# Global Footprint



# Corporate Overview



## **The Strategy:**

Karoon looks for high equity interests in early stage exploration opportunities with large potential targets in proven petroleum systems.

**The Company creates shareholder value as a result of an ongoing world class offshore drilling success rate of approximately 68% in prolific offshore hydrocarbon basins within Australia and Brazil.**

Karoon's technical expertise, along with high equity interests are utilised to create farmouts, funding the exploration and appraisal of opportunities.

## **Overview**

- A\$540 million market capitalisation
- 246.6 million ordinary shares on issue
- 11 million unlisted options
- Approximately A\$550 million cash at bank (as at 30/06/2015)
- No debt
- Member S&P / ASX 200 Index

## **Substantial Shareholders**

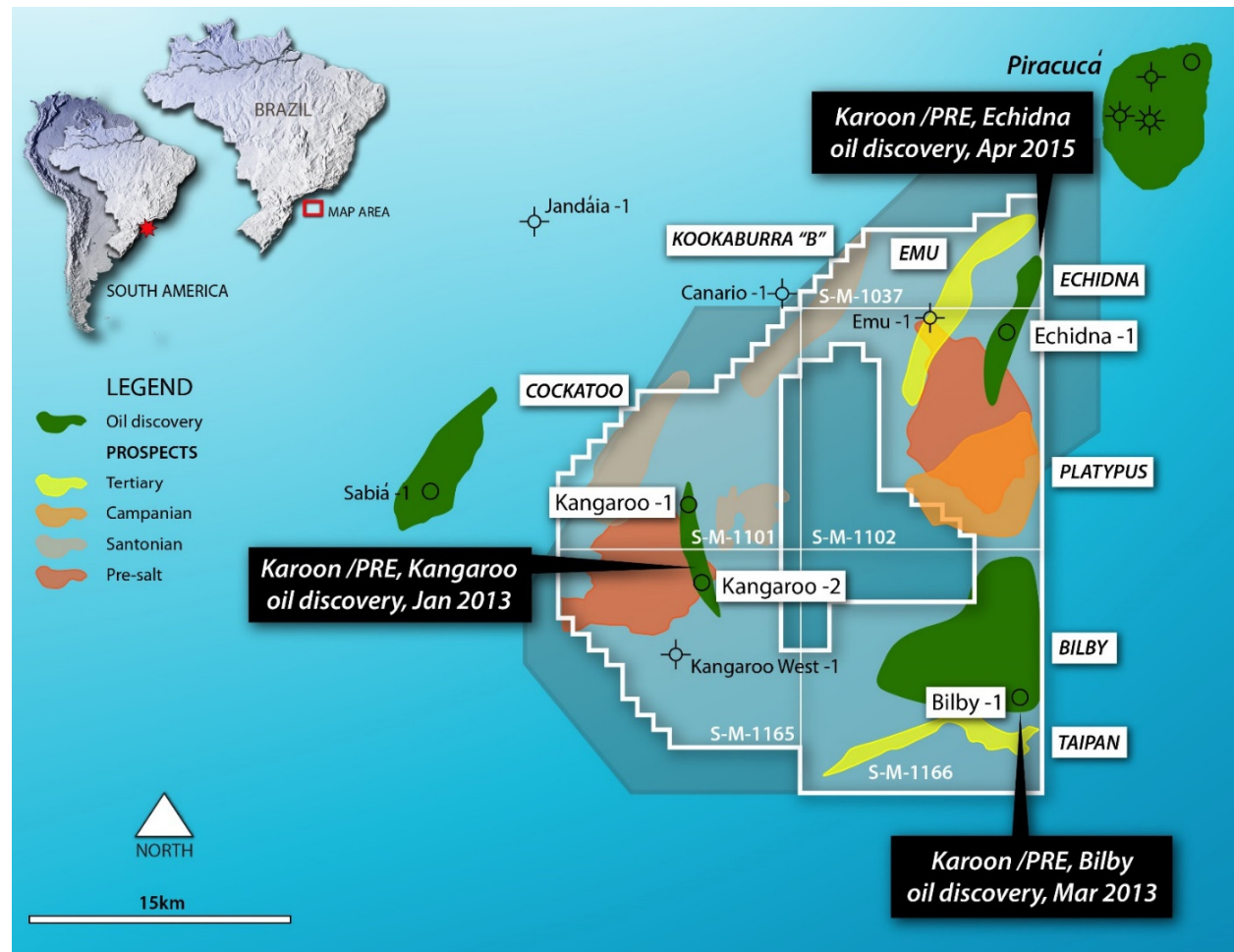
1. Wellington Management Co	13.1%
2. Talbot Group Investments	10.7%
3. Janus Capital	6.7%
4. Perennial Growth	5.7%
5. Robert Hosking	4.8%

# Value Proposition



<b>Proven Exploration Track Record</b>	<ul style="list-style-type: none"> <li>- Approximately 68% exploration drilling success rate since 2004 from 19 offshore exploration wells in Brazil and Australia</li> <li>- 3 oil discoveries in Santos Basin, Brazil providing for new development opportunities and the next phase of Karoon</li> </ul>
<b>Strong Funding Position</b>	<ul style="list-style-type: none"> <li>- Well funded with approximately A\$550m cash at bank (as at 30/06/15)</li> <li>- US\$200m contingent milestone cash receivables remain outstanding from Origin Energy</li> <li>- Trading at its current cash value reducing down side risk and providing exposure to further drilling success</li> </ul>
<b>High Impact Exploration Exposure</b>	<ul style="list-style-type: none"> <li>- High impact exploration exposure through Levitt-1 exploration well</li> <li>- Multi billion barrel net prospective resource exposure in Australia and Brazil</li> </ul>
<b>Appraisal Success In Brazil Proves Deliverability</b>	<ul style="list-style-type: none"> <li>- Reservoir deliverability in Kangaroo &amp; Echidna oil fields proven</li> <li>- Production testing supports peak flow rates from horizontal production wells in excess of 10kbpd</li> </ul>
<b>Targeted FY16 Work Program</b>	<ul style="list-style-type: none"> <li>- Focus on 2 core assets, the Santos Basin Brazil and Carnarvon Basin Australia</li> <li>- Updated pre-FEED development plans and a range of contingent resources for Echidna and Kangaroo are expected during the 4<sup>th</sup> quarter 2015</li> </ul>
<b>Poised to take advantage of market conditions</b>	<ul style="list-style-type: none"> <li>- Rig utilisation and rates are falling globally</li> <li>- New appraisal drilling in a lower cost environment</li> </ul>

# Santos Basin, Brazil – 5 Blocks



Equity Interest:  
JV Partner:

Karooon 65% (Operator)  
Pacific Rubiales 35%

# Echidna Discovery – Well Result



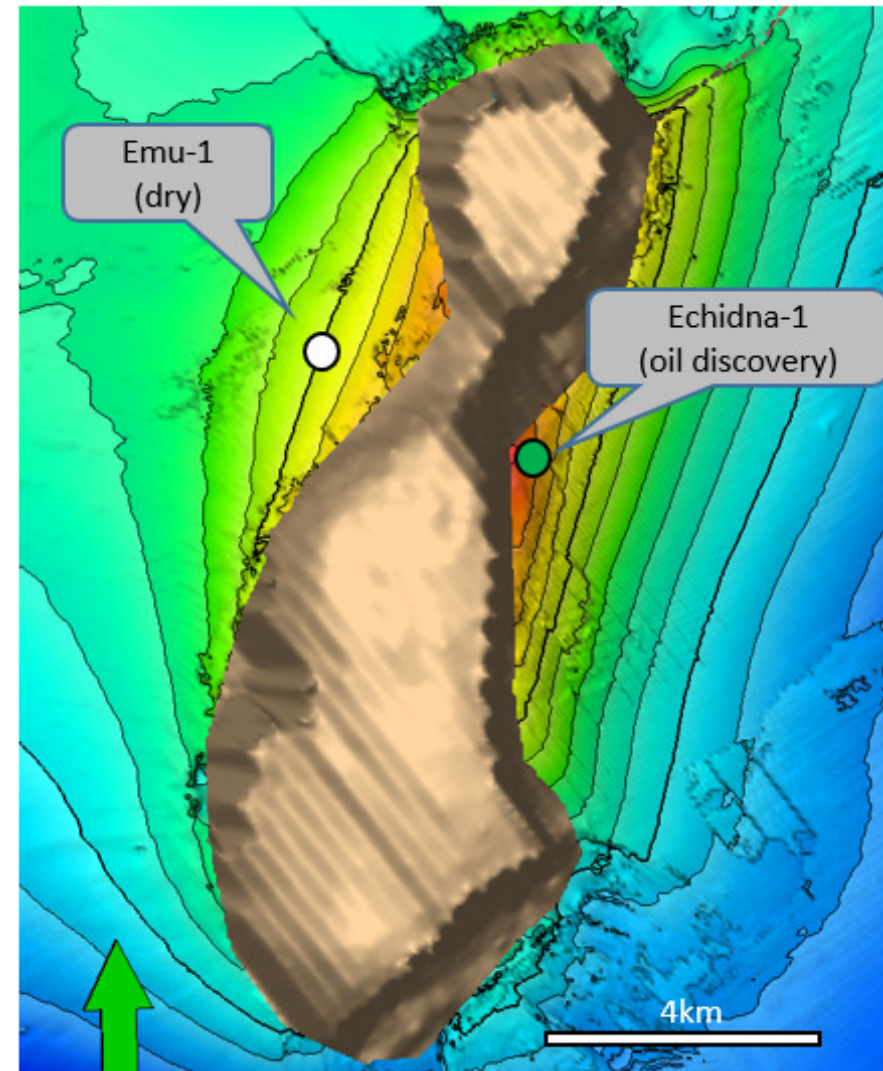
*“The positive production test results confirm good quality Paleocene reservoir.*

*Ultimately, well productivity is a key driver of commerciality for any oil project, particularly in the current oil price environment. In this context the result from the Echidna flow test is very encouraging.”*

Mr Robert Hosking, Managing Director

## Echidna-1 2015

- Intersected 213 metre gross (104 metre net) oil column of Paleocene and Maastrichtian age
- Oil samples measured 39 degree API oil gravity
- **Production test in the Paleocene reservoir flowed at a facility constrained flow rate 4,650 bopd**
- No CO<sub>2</sub>, H<sub>2</sub>S, water or sand produced in any of the flow tests



# Kangaroo Field – Well Results



**“Based on the flow rates achieved, a vertical production well could produce 6,000 to 8,000 stb/d from the combined reservoirs”**

**Mr Robert Hosking, Managing Director**

## **Kangaroo-1- 2012**

- Intersected 76 metre gross oil column, 42 degree API oil

## **Kangaroo-2- 2015**

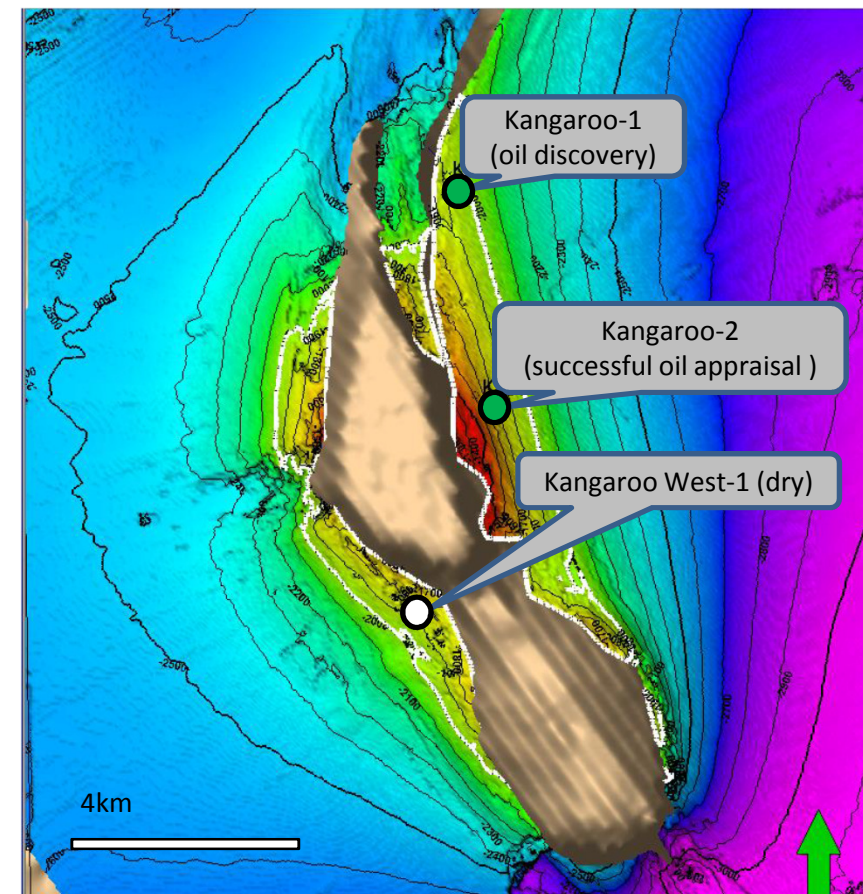
- Intersected 250m gross reservoir (133 metres net) across five separate oil columns of Paleocene and Maastrichtian age
- **Production test in the Paleocene A, B and C reservoirs flowed at a maximum flow rate 3,700 stb/d, 33° API oil**
- **Production test in the Maastrichtian A and B reservoirs flowed at a maximum flow rate 3,700 stb/d, 38° API oil**
- No CO<sub>2</sub>, H<sub>2</sub>S, water or sand produced in any of the flow tests

## **Kangaroo-2 Down-Dip- 2015**

- Intersected a 50 metre gross (18 metres net) oil column in Maastrichtian aged reservoirs, 38 degree API oil

## **Kangaroo-2 Up-Dip -2015**

- Intersected a 37 metre gross (22 metres net) oil column in Paleocene aged reservoir, 39 degree API oil



# Santos Basin – Road to Cash Flow



*Karooon is working to define the Kangaroo and Echidna resources in preparation for FEED, financing and FID*

- Resource definition through integrating latest well results and new processed 3D seismic data
- Pre-FEED work currently running concurrently with resource definition
- Appraisal and development drilling program planned for CY 2016
- Extended Well Test or Early Production System possibility
- Project engineering team continuing appraisal and development concept design

## **FY16 Work Program:**

- Follow on appraisal work program application (“PAD”) has been submitted to the ANP for approval
- Focused on the Kangaroo and Echidna light oil discoveries
- Updated pre-FEED development plans and a range of contingent resources for Echidna and Kangaroo are expected during the 4<sup>th</sup> quarter 2015

*FY16 appraisal program positioned to take advantage of a deflationary capital cost environment*

# Deflationary Capex Environment

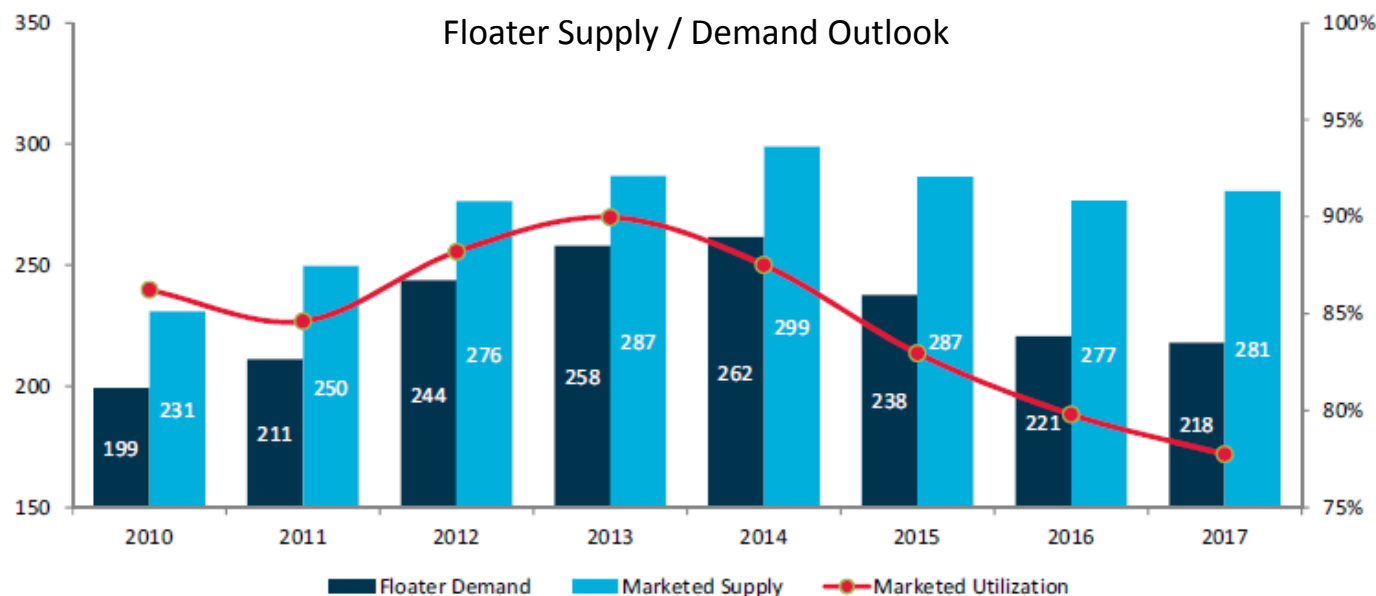


## Global Rig Market

- Declining industry returns and falling oil price resulted in dramatic cuts to exploration and appraisal budgets
- Worldwide rig utilisation rates expected to continue to fall year-on-year through 2017
- Opportunities for lower Exploration and Appraisal costs are evident

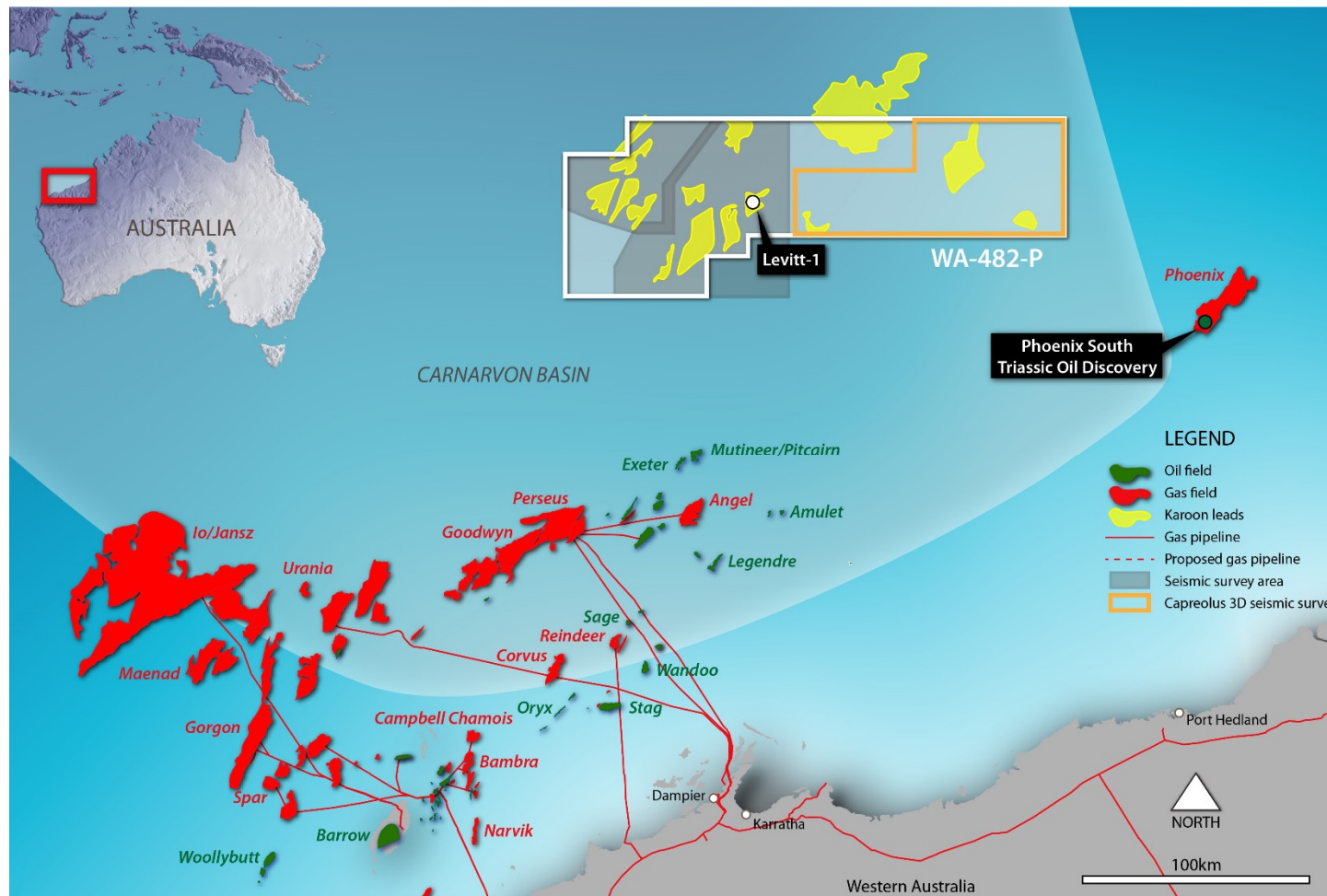
## Brazil Rig Market

- Brazil off-shore contracted rig count has fallen 39% from a peak of 87 rigs in March 2012 to 53 in June 2015\*
- Petrobras announced a US\$77Bn (37%) reduction to 5 Year Business Plan capital spending; Exploration budget down more than 50% year on year (announced 29 June 2015)



Source: Clarksons Platou Securities

# Carnarvon Basin, Australia – WA-482-P



Equity Interest:  
JV Partner:

Karooon 50%  
Quadrant Energy Australia Ltd\* 50% (Operator)

\* Formerly Apache Energy Ltd

# Exploration Permit WA-482-P



## Progress To Date:

- **1.1 Bn bbl net unrisked prospective resource best estimate identified from 6 prospects<sup>#</sup>**
- Chrysalids 3D seismic survey completed during 2014 adding additional prospects and leads
- Regional Capreolus 3D seismic survey being acquired, Karoon licencing 5,256 km<sup>2</sup> in WA-482-P
- **High impact Levitt-1 exploration well spudded 4 July 2015. Karoon is carried for 90% of the well cost**

## Exploration Upside Potential:

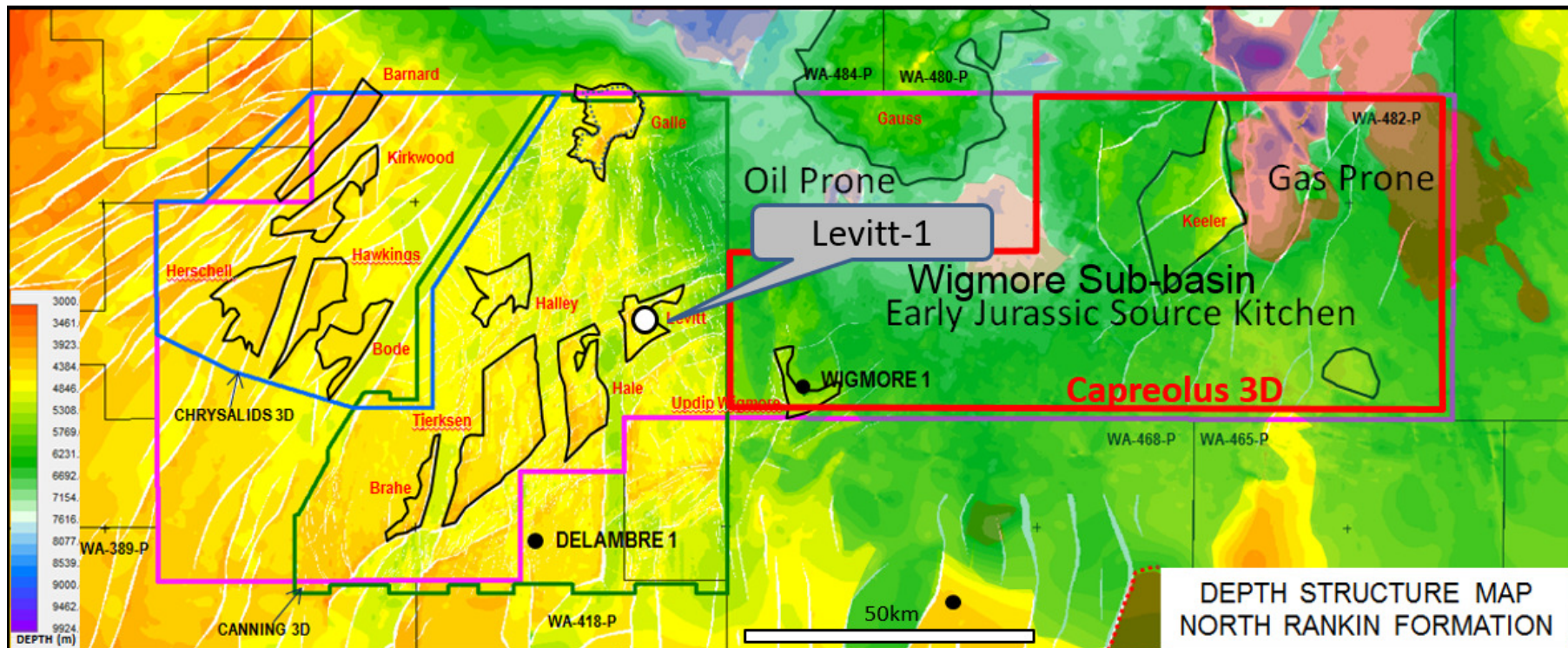
- Levitt-1 is designed to test the presence of a working petroleum system generating from the Wigmore sub-basin
- The sub-basin contains a significant thickness of Jurassic source rocks of the same age as those known to charge petroleum accumulations elsewhere in the Basin
- A successful result would open up a new exploration play in the Carnarvon Basin

Net Unrisked Resource			Prospective Category		
Prospect / Permit	Interest	Type	Low	Best	High
Levitt <sup>#</sup>	50%	Oil (mmbbls)	36	110	275
WA-482-P <sup>#</sup>	50%	Oil (mmbbls)	375	1,117	2,837

***Large Permit of 13,539 square kilometres,  
1.5 times the size of the Browse Basin Assets sold by Karoon to Origin Energy for US\$800 million in 2014***

<sup>#</sup> As assessed by DeGolyer and MacNaughton, refer to Resource Summary, pg 20 (based on Canning 3D seismic only)

# Carnarvon Basin – WA-482-P

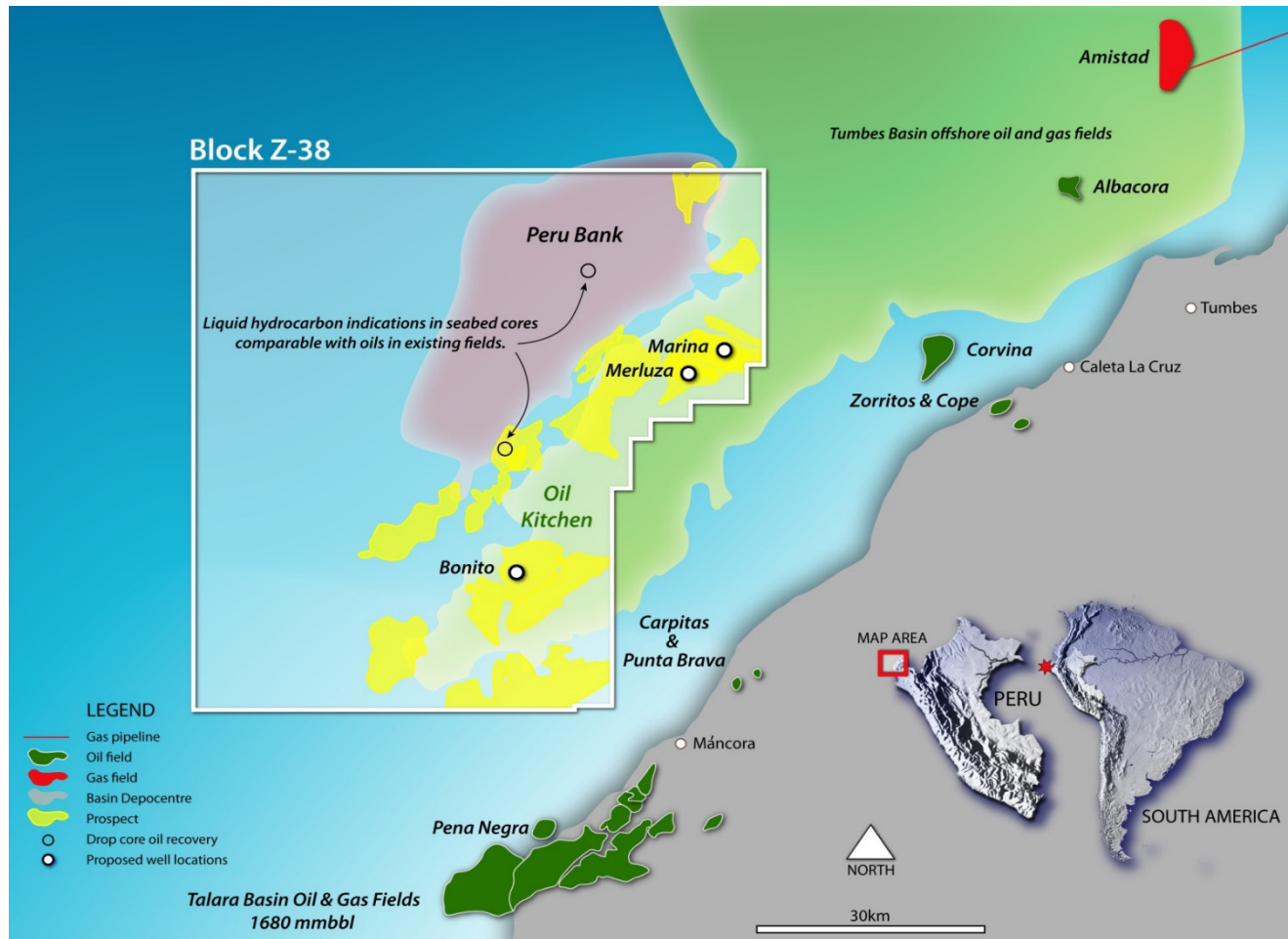


## Levitt Prospect

- Targets in the North Rankin and Legendre Formations
- The well positioned to receive migrating hydrocarbons from the kitchen
- Levitt gross unrisks prospective resource best estimate 220mmbbls, 110mmbbls net<sup>#</sup>

<sup>#</sup> As assessed by DeGolyer and MacNaughton, refer to Resource Summary, pg 20 (based on Canning 3D seismic only)

# Tumbes Basin, Peru – Block Z-38



Equity Interest: Karoon 75% (Operator)  
 JV Partner: Pitkin Petroleum Corporation 25%

# Exploration Block – Z-38



## Progress to Date:

- Independently assessed net unrisked prospective resource best estimate 1,686 mmbbls<sup>#</sup> (across 18 prospects)
- Prospect evaluation complete and preliminary drill locations have been selected
- Environmental plan approval received

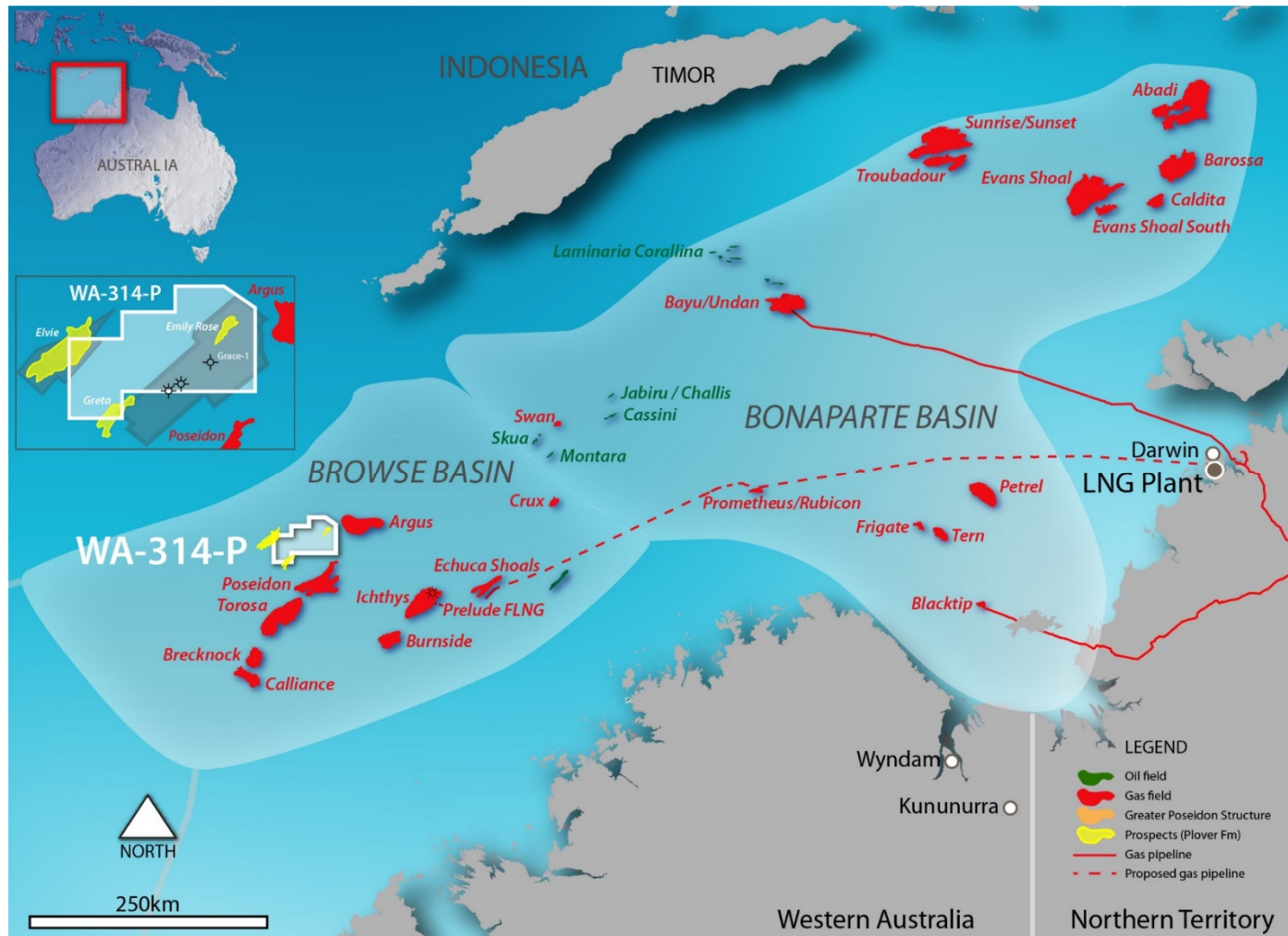
## Forward Plan:

- The block is currently in force majeure
- Initial 2 well campaign planned
- Preliminary well locations identified as the Marina and Bonito prospects
- Farmout discussions remain on-going with interested parties

Independently Assessed			Net Unrisked Prospective Resource		
	Interest	Type	Low	Best	High
Marina (Prospect) <sup>#</sup>	75%	Oil (mmbbls)	129	240	405
Bonito (Prospect) <sup>#</sup>	75%	Oil (mmbbls)	186	415	953
<b>Z-38 (Block) <sup>#</sup></b>	<b>75%</b>	<b>Oil (mmbbls)</b>	<b>686</b>	<b>1,686</b>	<b>3,764</b>

<sup>#</sup> As assessed by DeGolyer and MacNaughton, refer to Resource Summary, pg 20

# Browse Basin, Australia – WA-314-P



Equity Interest:

Karoo 100% (Operator)

# Exploration Block – WA-314-P



## **Progress to Date:**

- Kraken 3D seismic survey acquisition (over the Elvie prospect), and data processing and interpretation complete
- Current work program commitment comprises G&G studies

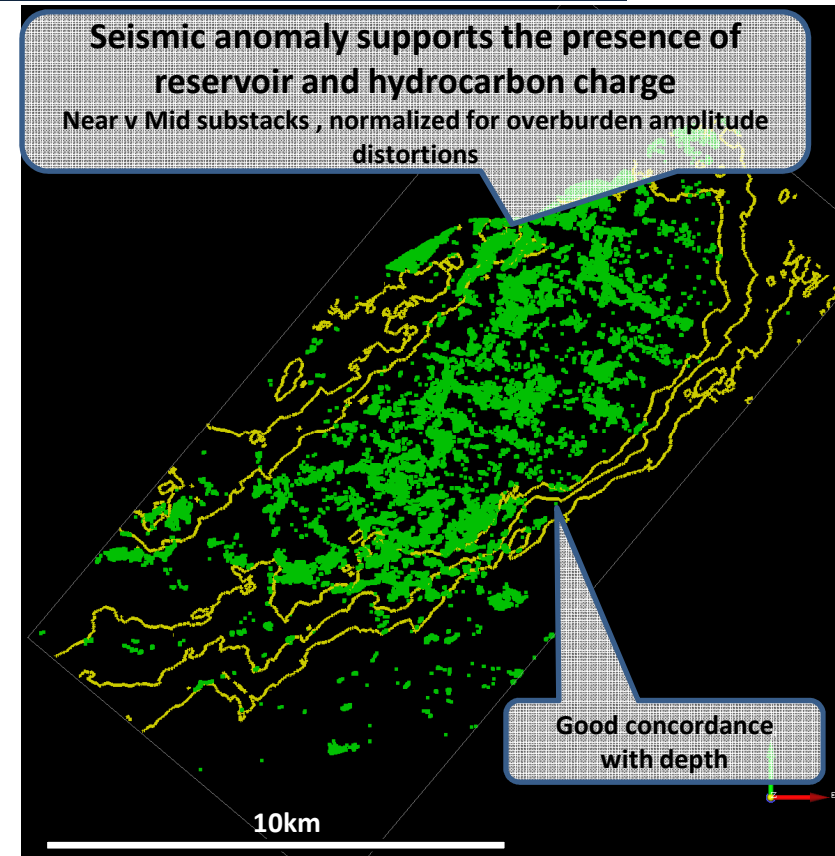
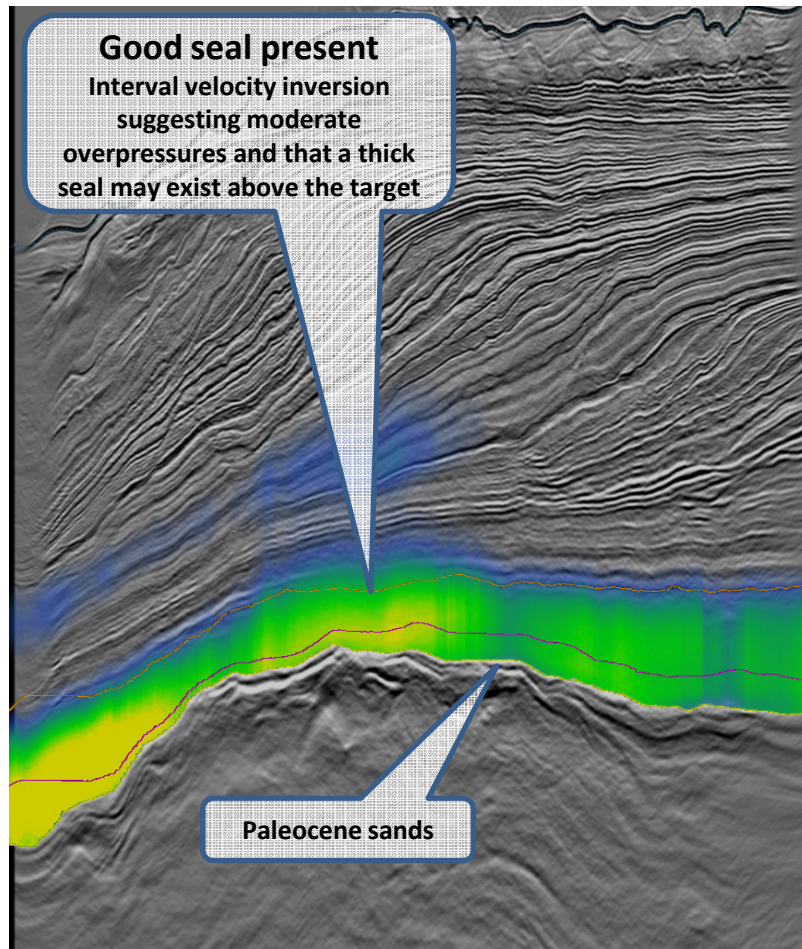
## **Exploration Upside Potential**

- New Paleocene turbidite sand play identified
- Seismic anomalies support the presence of trapped hydrocarbons
- New 3D seismic and analysis of regional data strongly supports the presence of oil in the Elvie Prospect

## **Farmout:**

- Discussions remain ongoing with interested parties now having access to new 3D seismic

# WA-314-P – Elvie prospect



New 3D seismic and analysis provides dramatically improved resolution, and increases the confidence in the presence of reservoir, seal and hydrocarbon charge in the Elvie Prospect.

# Corporate Social Responsibility



*Karooon is committed to the equitable and sustainable development of the environment and the communities in regions where we operate*



# Corporate Social Responsibility



Peru was identified as the operational location where investment in social and environmental programs presented the best chance to make a significant positive contribution. The focus is on empowering individuals and communities by creating opportunities for improved healthcare, education, training and business.

Karooon implemented the Citizen Participation Plan, a program designed to allow frequent and transparent dialogue with local communities around planned exploration activities and to identify the best opportunities to support those communities.

## ***Social and Environmental Programs:***

- *Artisanal Fishermen Formalization:* Promote the formal identification through licensing of local fishermen and safety at sea
- *Micro Business Program:* Promote micro businesses in bijouterie (through the brand *Mutumbi*) managed by the local women of Tumbes
- *Frigatebird Project:* Promote sustainable tourism in the mangrove ecosystem of Puerto Pizzaro, Tumbes, through researching and increasing the awareness and protection of the Magnificent Frigatebird and its habitat
- *Healthcare and Education Programs:* Promote health and education for disadvantage localities to support the local institutions and improve living condition
- *Land Titling Program:* Formalize community boundaries and publically register property to improve the land security
- *Natural Medicine Program:* Improve community knowledge and opportunities around the biodiversity in the Amazon

# Resource Summary – NET to Karoon



The estimated quantities of petroleum that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. There is no certainty that any portion of the prospective resource estimated on behalf of Karoon will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources evaluated.

Independent Assessment - DeGolyer & MacNaughton					NET Contingent Resource			NET Unrisked Prospective Resource		
Permit	Interest	Basin	Country	Type	1C	2C	3C	Low	Best	High
WA-314-P*	100%	Browse	Australia	Wet Gas (Bcf)	-	-	-	559	1,096	2,051
Permit / Block	Interest	Basin	Country		1C	2C	3C	Low	Best	High
WA-482-P*	50%	Carnarvon	Australia	Oil (mmbbls)	-	-	-	375	1,117	2,837
Block Z-38*	75%	Tumbes	Peru	Oil (mmbbls)	-	-	-	686	1,686	3,764
Block 144*	100%	Maranon	Peru	Oil (mmbbls)	-	-	-	53	107	195

Internal Assessment					NET Contingent Resource			NET Unrisked Prospective Resource		
Prospect	Interest	Basin	Country		1C	2C	3C	Low	Best	High
Kangaroo	65%	Santos	Brazil	Oil (mmbbls)	UNDER REVIEW**					
Echidna	65%	Santos	Brazil	Oil (mmbbls)						

\* Prospective resource volume estimates have been independently assessed by DeGolyer and MacNaughton on a probabilistic basis and disclosed in Karoon's 30 April 2014 announcement. Prospective Resource estimates are under review following the completion of the 3D seismic and geological work.

\*\* Karoon's assessment of the Kangaroo oil field contingent resource and the Echidna discovered resource is under review following the completion of the latest Santos Basin drilling program. Once all the data has been received and interpreted along with integrating new 2 millisecond seismic data into the field model, Karoon expects to be able to provide an update to the contingent resource estimates.

For the prospective resource estimates previously announced and referred to above, Karoon is not aware of any new information or data that materially affects the resource estimates and all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

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