



PPL 326 – PAPUA NEW GUINEA

EXPLORING A NEW FRONTIER BASIN  
AN INVESTMENT OPPORTUNITY

October 2013



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- Significant potential exists for undiscovered oil and gas in Papua New Guinea (PNG).
- Larus Energy is an oil & gas company focussed on identification and development of petroleum projects in PNG. Based in Kupiano (Central Province) with strong connections to government and community in PNG and with a PNG Director who resides in the permit area.
- Holds 100% of **PPL 326** over a large highly prospective onshore & offshore region of PNG (totals 200 blocks which is significantly bigger than a normally granted permit) – area 17,000<sup>2</sup> kms – stretching over 500 kms from Port Moresby to Milne Bay.
- Independent geologist’s review supports the prospectivity of the Larus permit and initial estimates of the oil gas prospects suggest a “new” basin rivalling anything else in PNG.
- Due to location any success would be cheaper to develop commercially than other areas in PNG
- Initial seismic and exploration program over only 12% of the permit area completed with encouraging results. Shallow offshore infill seismic over six prospects being planned to focus drilling in 2014 followed by onshore seismic later in 2014.
- We have an “open” share register comprised of small equity investors with no cornerstone investors. We seek funding for ongoing activities, infill seismic and the initial drilling.



## Capital structure (at October 2013)

Shares outstanding	M	~168
Granted options (15-40 cents)	M	11.3
Capital raised since inception	A\$M	\$13.0
Debt	A\$M	nil

## Shareholders

Number of shareholders		~500
Top 20 Shareholders	%	~35.0



## ■ Immediate steps taken by New Board:

- ✓ New management installed.
- ✓ Forensic review of expenditure and review of strategy.
- ✓ Prioritise ongoing exploration activity in PNG.
- ✓ Review structure of the PNG operation.
- ✓ Crystallise the inherent and prospective value of our assets.
- ✓ Restructure capital raising to fund ongoing activities and new priorities.
- ✓ Reset Company focus to advance assets to commercialisation



***...develop early drillable oil & gas prospects***

## Dr John Hewson, Executive Chairman

- Extensive career as an academic and economist, a political advisor and politician, a businessman, and in the media as a columnist and commentator
- Previously Founding Executive Director of Macquarie Bank, Chairman of ABN AMRO Australia and held Chairman or Director positions for a large number of public and private companies and charities

## Mr Bruce Fulton, Non-Executive Director

- Experienced executive and geoscientist who has over 25 years global metal and mining exploration and development experience
- Served on the boards of a number of listed companies
- Member of The Australian Institute of Company Directors (MAICD); The Australasian Institute of Mining & Metallurgy (MAusIMM); Canadian Institute of Mining, Metallurgy & Petroleum (MCIM); and the Society of Economic Geologists (MSEG).

## Mr Colin Glazebrook, Non-Executive (Technical) Director

- Resource geologist with 50 years international industry experience
- Fellow and Chartered Professional – (Management) of the Australasian Institute of Mining and Metallurgy, Member & Certified Geologist of American Association of Petroleum Geologists and member & Past President (Meritorious Service Award) of the Petroleum Exploration Society of Australia
- He has worked in both upstream and downstream oil & gas area carrying out regional and detailed investigations and has been involved in several field discoveries and developments

## Sir Joseph J Tauvasa KBE, Non-Executive Director

- Chairman of South Pacific Brewery Limited, a PNG's Councillor on ABAC (APEC Business Advisory Council) and Chairman of the External Stakeholder Advisory Panel for the Hidden Valley Joint Venture Mine
- He was a former Chairman of Air Niugini, a Director of Westpac Bank PNG Limited, a Director Lihir Gold Limited and a Member of CRA Advisory Board in PNG. He also served as President of the Institute of National Affairs, and President of the PNG Australia Business Council

## Ms Anne Adaley, CFO and Company Secretary

- Extensive experience in legal and company secretarial for private, public and listed companies principally in resources
- Current Company Secretary for Tellus Resources, Gulf Industrials Ltd and Waratah Resources Ltd

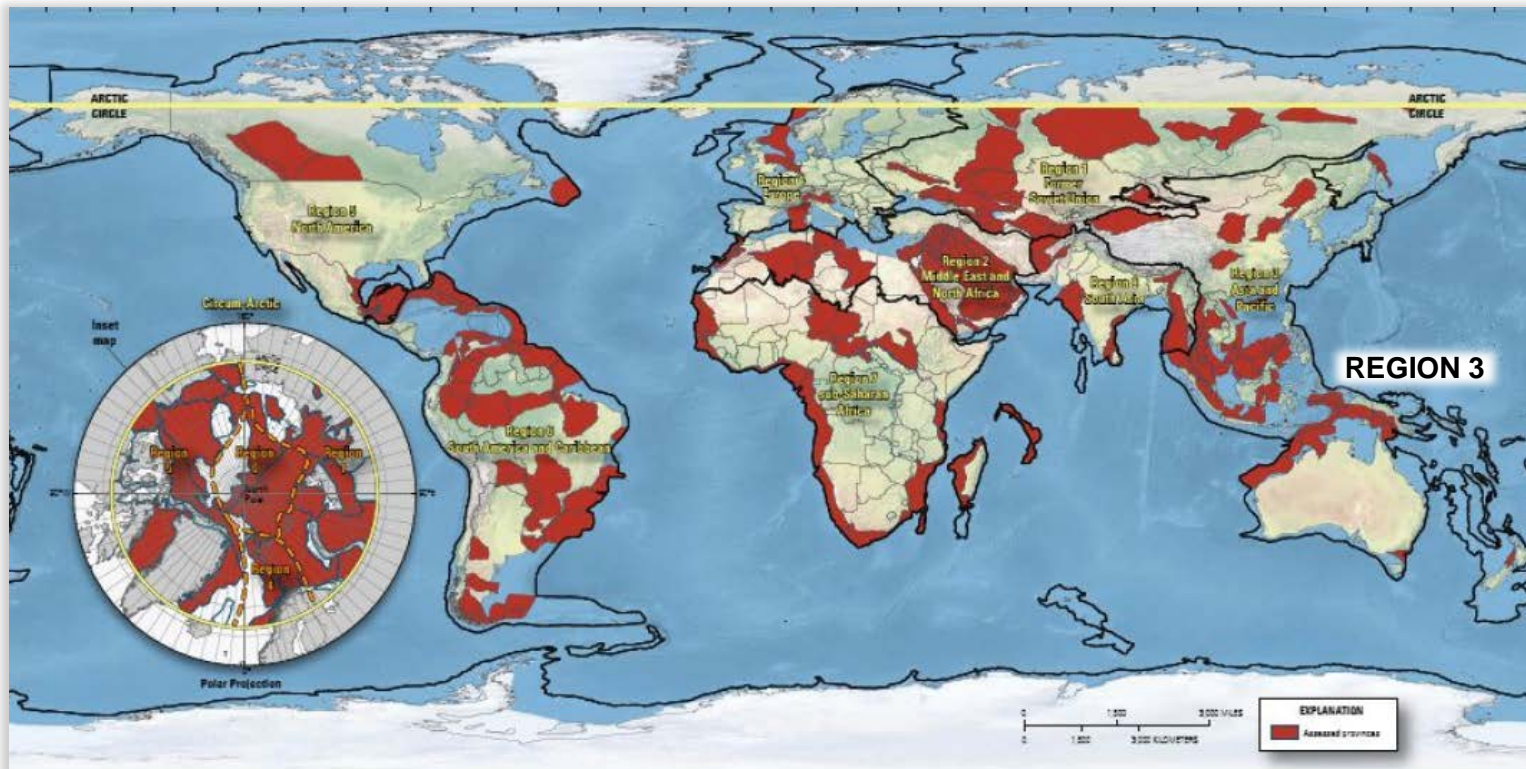


- Very supportive government, focussed on encouraging investment activity in the country
- World class oil and gas fiscal terms
  - Includes provisions of fair and reasonable return on capital in the event of commercialisation of a discovery
  - Provides stable and predictable fiscal framework for potential oil and gas companies to invest in PNG
  - Recognises the high cost and risks of exploring for oil and gas in PNG
- Impressive exploration success rate of 1 in 7 in the Fold Belt which is largely unexplored
- Exploration potential ranks high in the region
  - Oil prospects generally >100mmbls
  - Large gas prospects are suitable for LNG development

***...a great place for developing oil and gas***



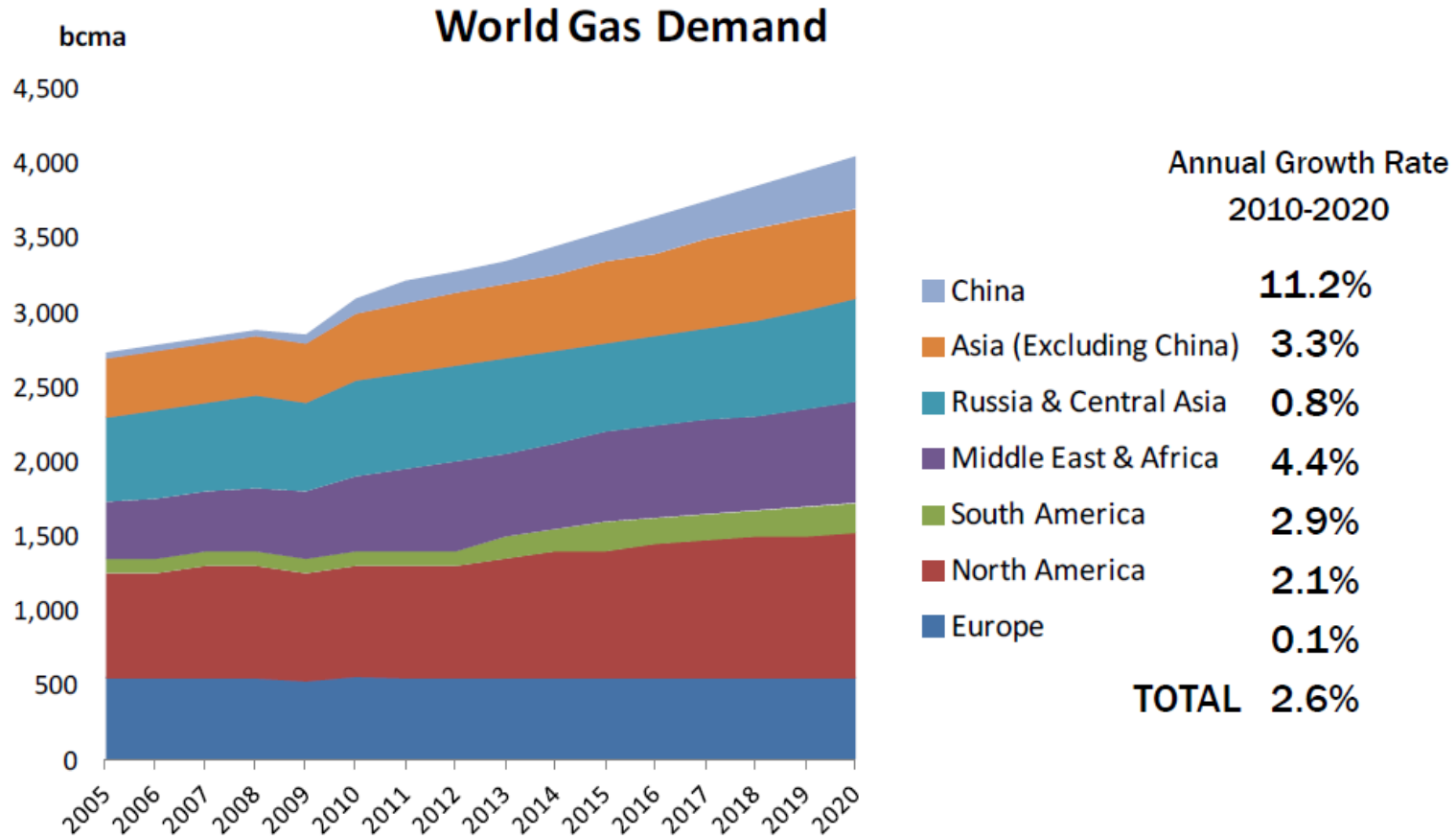
## UNDISCOVERED CONVENTIONAL OIL & GAS RESOURCES OF THE WORLD



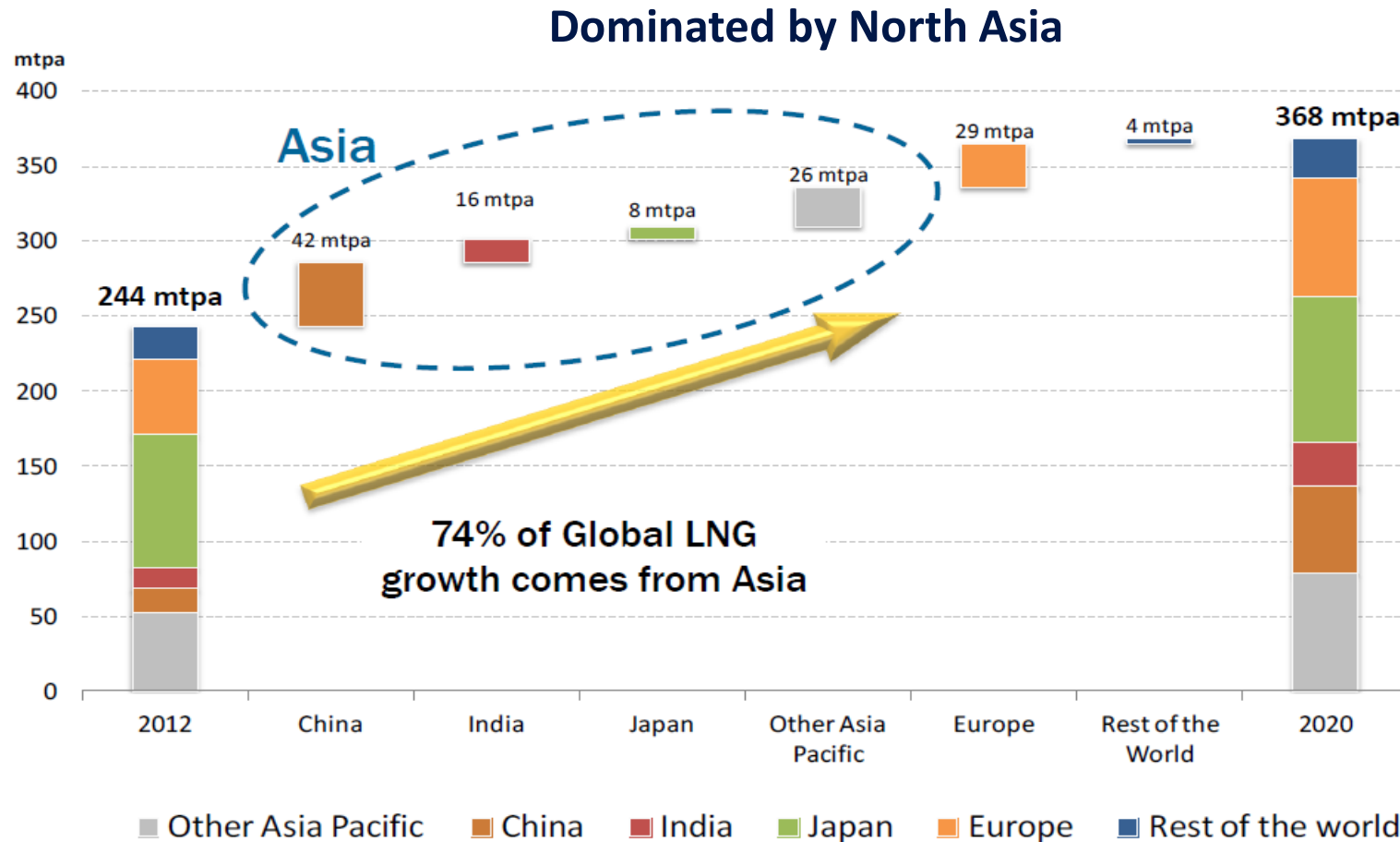
Source: USGS March 2012

***...estimates of >40 BBLS oil & >738 TCF gas in Region 3 which includes PNG & Australia***



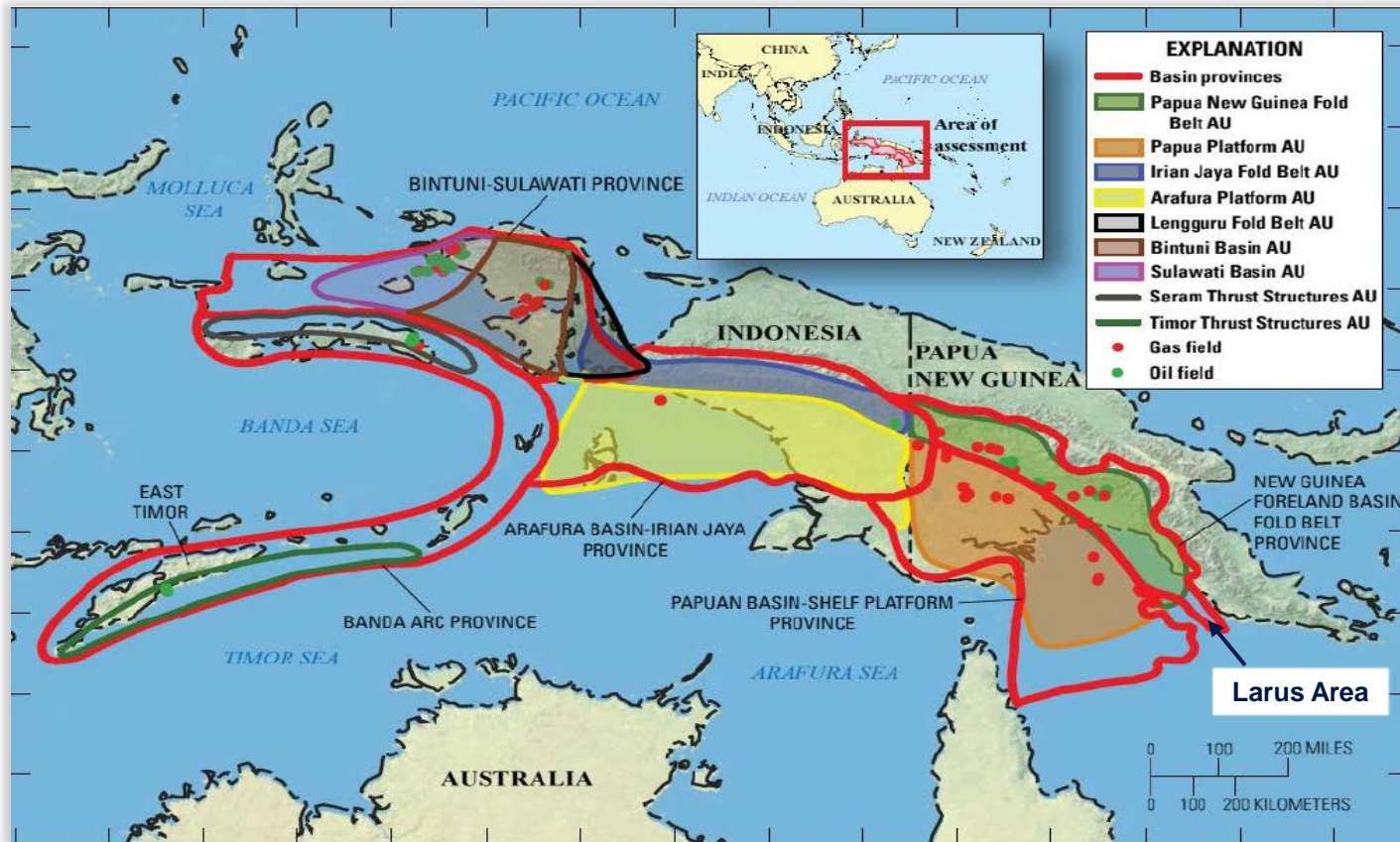


Source: IEA



Source: Wood Mackenzie

## UNDISCOVERED OIL & GAS RESOURCES OF PAPUA NEW GUINEA



Source: USGS March 2012

***...estimates of 1,215 MMBLS Oil & 18,138 BCF Gas within PNG Fold Belt***

**ExxonMobil**

33.2% interest in and operator of **US\$15.7 billion** PNG LNG Project in alliance with National Petroleum Company of PNG (NPCP)



Major oil producer with 29% interest in **US\$15.7 billion** PNG LNG Project

**Santos**

13.5% interest in **US\$15.7 billion** PNG LNG Project



**\$134 million** net cash expenditure on exploration, appraisal and development activities in 2011

Nippon Oil

Co-investor in **US\$15.7 billion** PNG LNG Project

**Mitsubishi Corporation**

20% interest in Talisman PNG alliance worth **US\$280 million**



**US\$800 million** in exploration over the next three years.



51% interest in and operator of four onshore licences

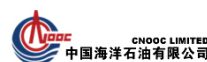


Regional office in Port Moresby and alliance with Petromin (PNG SOE)



**Pacific Rubiales Energy**

HOA 10% interest from InterOil in PPL237 – **US\$116m**, exploration carry, final resource payment



**CNOOC**

Acquiring 70% of PNG permits from UMC Energy for 100% carry of all exploration work commitments. PPL 374 & 375 to south of Larus

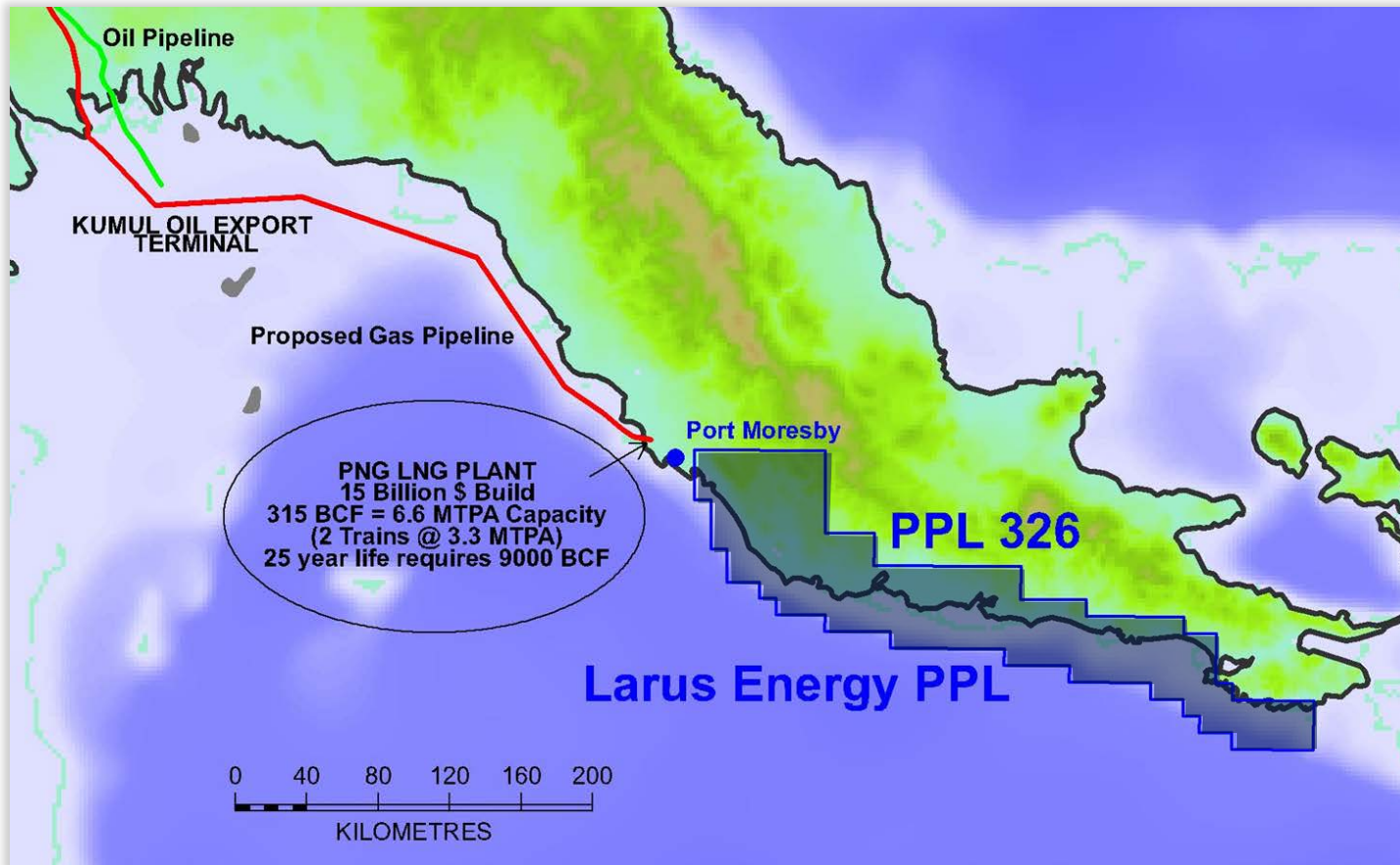


**Total**

Acquisition of 50% Oil Search interests Gulf onshore & offshore blocks

Source: Company announcements





Source: Larus Energy

- Good commercialisation prospects at Port Moresby with Napa Napa oil refinery & PNG LNG facility
- Major oil companies are focused on PNG and investing heavily.

## ACTION

## VALUE CREATION

2010

- Public seismic data obtained
- New Basin concept developed
- First capital raising

- Independent Geologist's verification that the concept developed by the company was plausible
- Five leads indicated in deep water

2011

- Preliminary Social Mapping Study completed
- Completed basement mapping; identified new basin
- 1000km Baramata 2D seismic offshore

- Mapping demonstrated that area separate from Papuan Basin rejected old notions of lack of prospectivity as the Eastern extremity of the Papuan Basin

2012

- Established Kupiano operations centre
- Acquired 300km Abau OBC-TZ seismic shallow water

- 9 strong leads and 17 weak now indicated
- Strong connection to local community and government

2013

- Offshore 2D infill seismic & Onshore 2D seismic programs planned with access agreements and line cutting already commenced

- Inventory now 6 prospects, 16 strong leads and 28 weak leads both Mesozoic and Tertiary
- Initial Inventory of prospects and leads at >90,000 BCF gas and 1,500 mmbbls oil in place

## Papua New Guinea, PPL 326 (40% onshore | 60% offshore)

- Work to date has indicated the potential for the discovery of large economic oil & gas deposits in a newly discovered **basin**.
- Inventory now includes 6 Prospects and 16 strong leads
- Initial estimates of potential unrisksed ~90,000 BCF gas and unrisksed ~1,500 MMBBLs of associated oil/condensate in place
  - Acquired 1300 km of targeted seismic data over 12% of the area and evaluated results
  - Independent geologist report completed which supports Larus' assessment of prospectivity
  - Four shallow water prospects chosen for offshore detailing seismic
  - Prepare for drilling H1 CY2014 following reprocessing and prospect re-evaluation
  - Further offshore seismic planned followed by onshore seismic in final period of licence
  - Subsequent farm-outs with major oil companies using established benchmark valuations

*...new basin revealed covering twice the Highlands area*

## **Papua New Guinea, PPL 326 (100% Larus)**

- PPL 326 is entering the third (two-year) period of exploration having successfully completed the first two periods since granting of the licence to Larus Energy Ltd in July 2009

### **Permit Commitment Variation Years 5 & 6 (August 2013 – August 2015)**

- Acquire up to 400 km infill seismic offshore.
- Technical review.
- Drill an offshore well in shallow water.
- Plan and acquire up to 300km of seismic onshore.
- Technical review .
- Program for Years 7 – 12.
- Financial analysis

***...PNG Department of Petroleum & Energy has approved variation***



## GO FORWARD STRATEGY

Current

- Investor Presentation prepared. Looking at possible associations which would bring liquidity, cash, future funding commitments and existing global exploration capacity

Q4 2013

- Further shallow water offshore seismic acquisition on four identified prospects

H1 2014

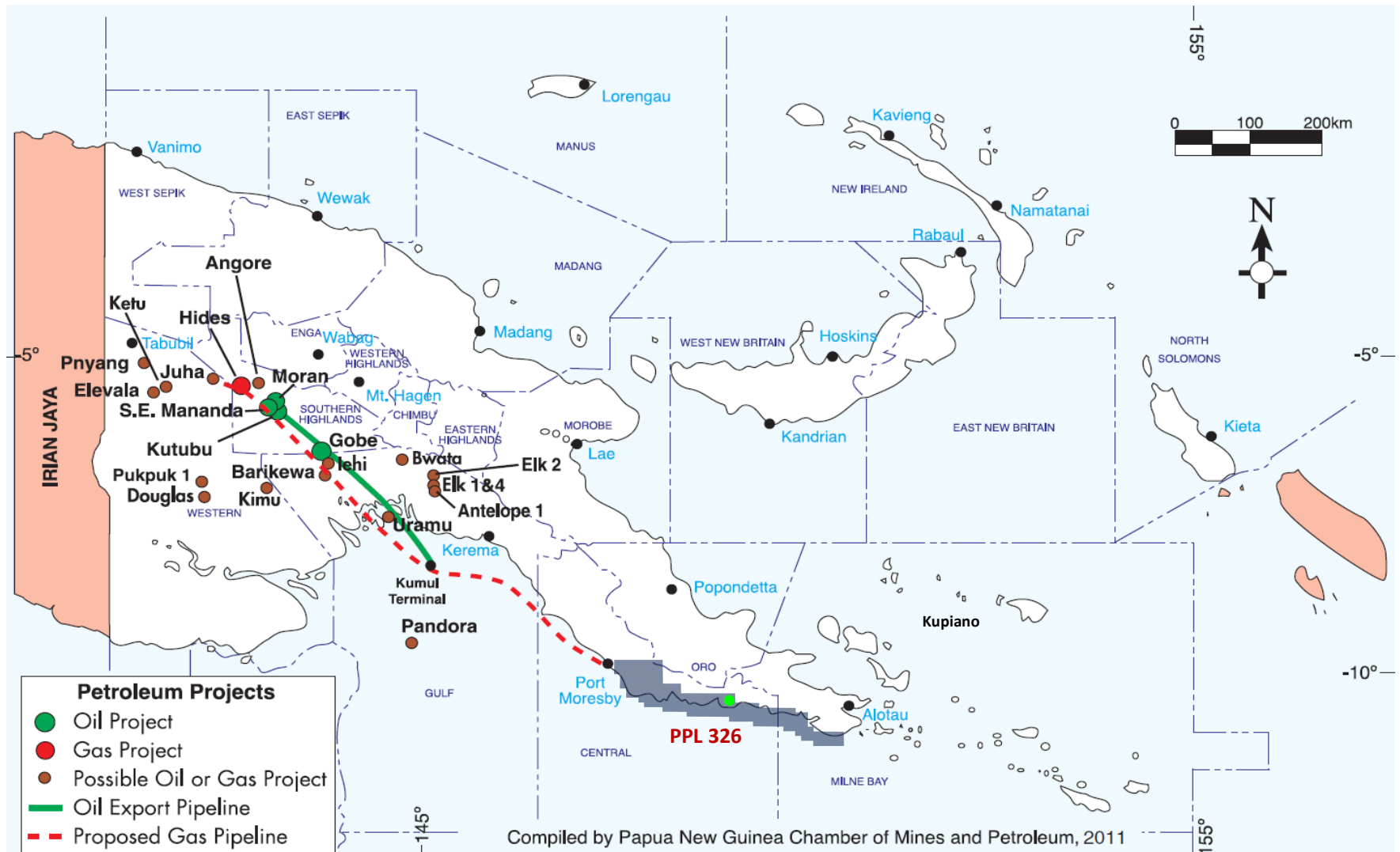
- Commence offshore drilling campaign on Vekwala Prospect
- Conduct competitive process for major farm out for drilling of other offshore prospects

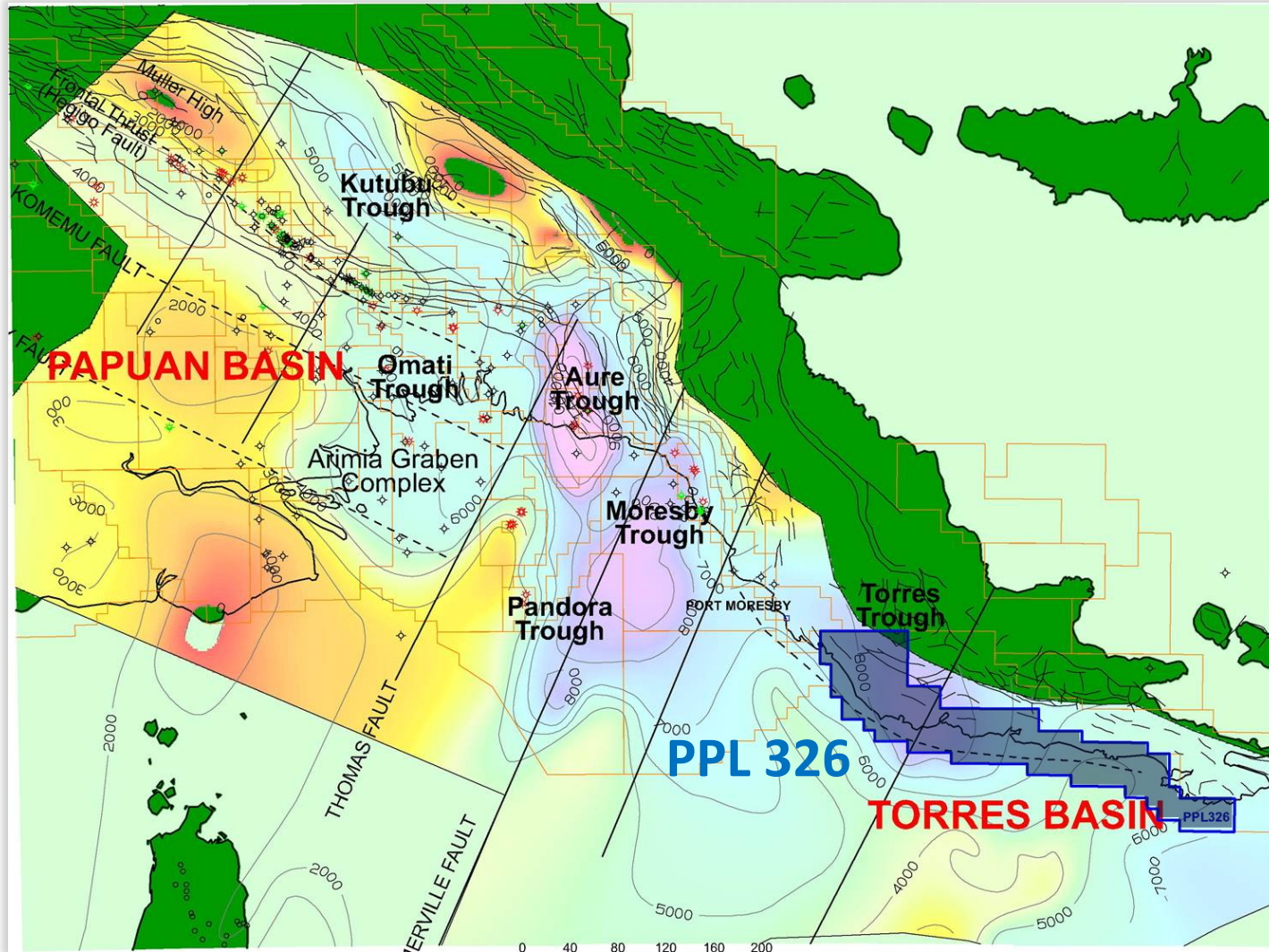
H2 2014

- Onshore seismic campaign to identify prospects
- Conduct competitive process for farm out drilling of onshore prospects

H1 2015

- Commence further drilling campaign both offshore and onshore as prospects develop





Source: Larus Energy

## KUTUBU TROUGH

All Highlands gas fields are this age

There are 28 oil and gas provinces

Currently 30 TCF of reserves and 1.2 BBL oil & condensate

## AURE TROUGH

Has Elk & Antelope oil & gas fields

Resources estimate  
9-12 TCF  
120– 190 MMBBL oil & condensate

## MORESBY TROUGH

Holds Pasca & Pandura Discoveries

Resources estimate  
1-3 TCF

## TORRES TROUGH

Newly identified by Larus

Undrilled 'frontier' Basin

Similarities to the Kutubu trough

## PPL 326

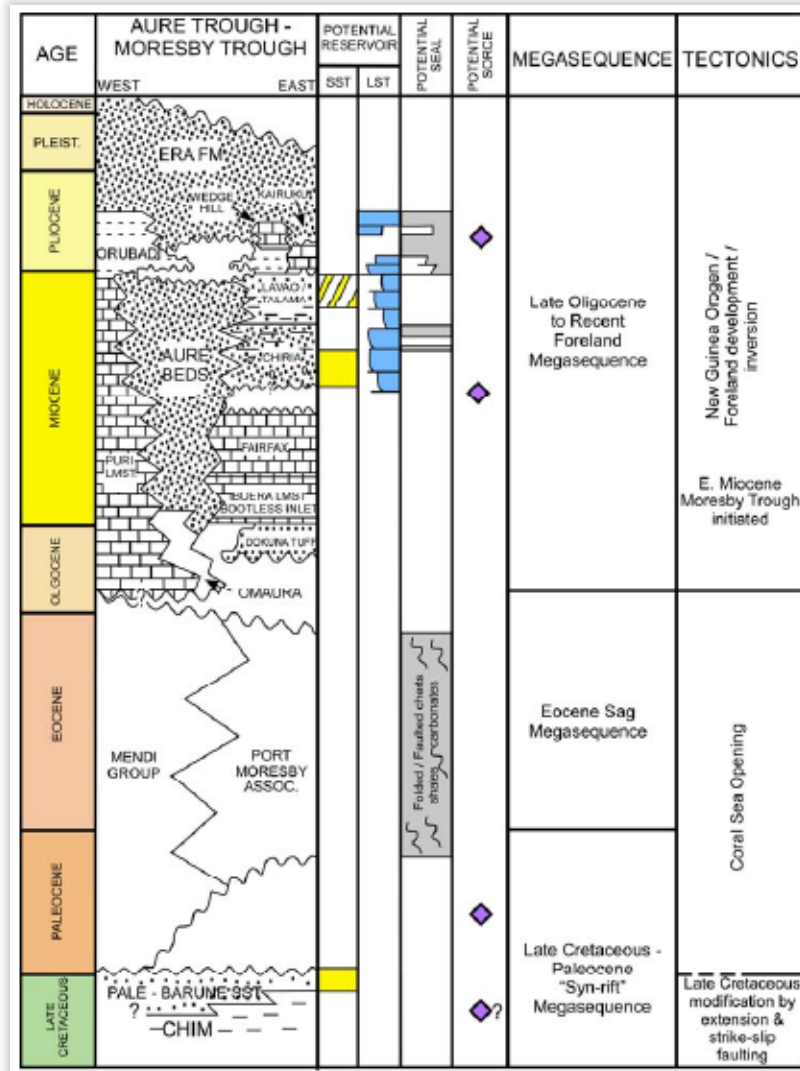
200 blocks in Torres Trough. Only reviewed about 12% of area

Identified 6 initial prospects

Potential portfolio of >90 TCF & 1.5BBL of oil & condensate

***...PPL 326 prospects identified as potentially world class***





## Source(s)

- Early to Middle Jurassic shales - Maril Shale
- Miocene – Pliocene shales – Aure Beds

## Reservoirs

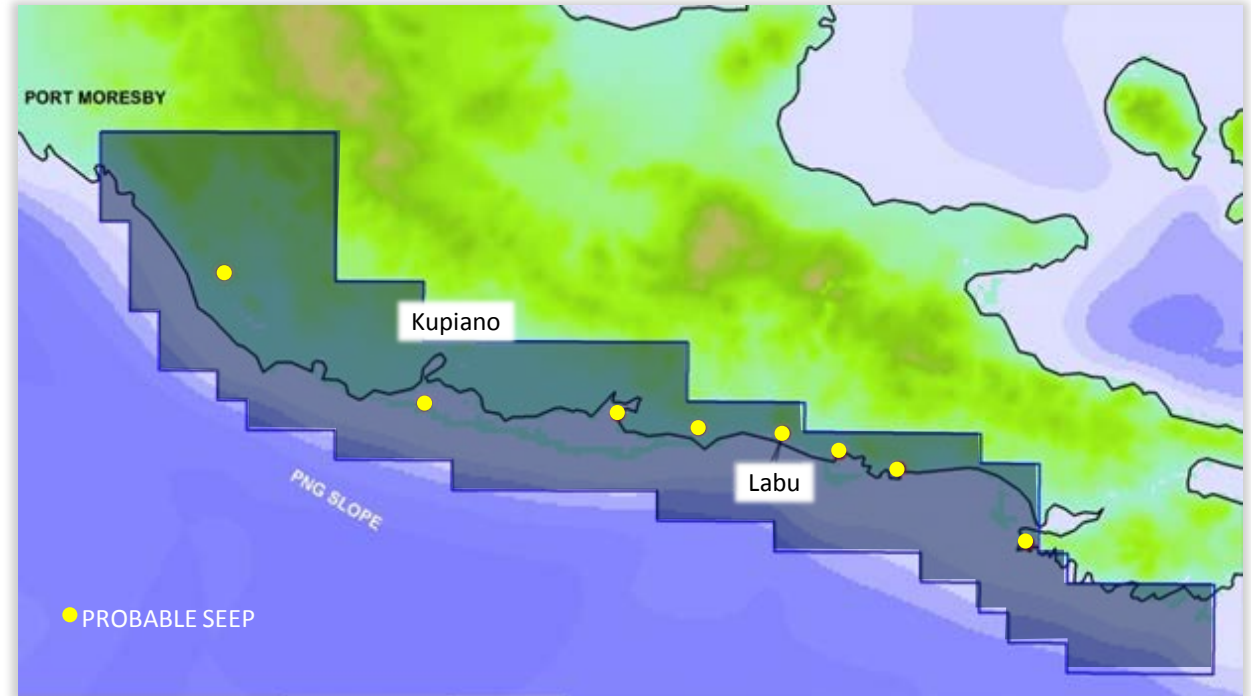
- Middle Jurassic to Early Cretaceous Sandstones – Toro Sandstone Equivalent, Pale Sandstone
- Tertiary Sandstones – Talama & Lavao
- Miocene Limestones - Puri Limestone equivalent

## Seals

- Orubadi Shale & Intraformational

***...PPL 326 prospects are expected to have equivalent source, reservoir and seal rocks***

Source: RPS Energy Services



Source: Larus Energy

- A number of oil seeps have been reported in PPL 326
- 2001 Report by PNG Government of previous analysis of oil seep at Labu concluding to be genuine oil...demonstrates there is an active hydrocarbon system in Torres Basin
- Larus is currently investigating all seeps in PPL 326

## Known Significant PNG & PPL 326 Prospect Resource Estimates

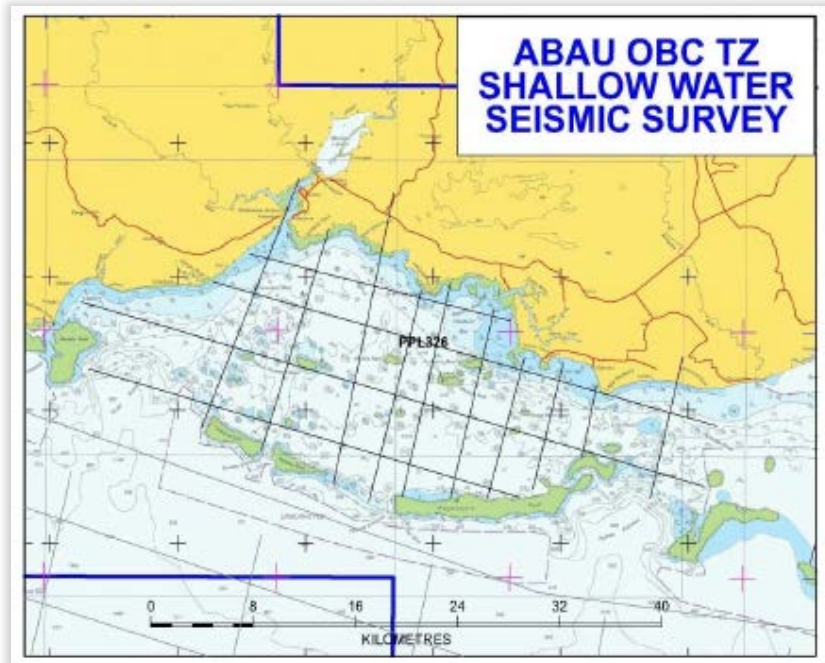
COMPANY	PERMIT	PROSPECT	GIIP BCF	STOOIP MMBbls	GEOLOGICAL PERIOD	RESERVOIR LITHOLOGY	BASIN TYPE
Talisman	PRL 1	Pandora	1,738		Miocene	Puri & Mendi reef	Foreland
Interoil	APRL 15	Elk/Antelope	8,120	157	Miocene	Puri & Mendi reef	Foreland
Oil Search	PRL 8	Kimu	700?		Jurassic	Toro Sandstone	Foreland
Oil Search	PDL 2	Kutubu	1,958	557	Jurassic	Toro Sandstone	Highland
Esso/Oil Search	PDL 5	Moran	654	259	Jurassic	Toro Sandstone	Highland
Esso/Oil Search	PDL 8	Angore	9,034		Jurassic	Toro Sandstone	Highland
Esso/Oil Search	PDL 1 & PDL 7	Hides & SE Hides	9,584		Jurassic	Toro Sandstone	Highland
Esso/Oil Search	PDL 9	Juha	1,541		Jurassic	Toro Sandstone	Highland
Santos	PRL 5	Elevala	611		Jurassic	Toro Sandstone	Foreland
Santos	PRL 5	Ketu	544		Jurassic	Toro Sandstone	Foreland
Foreland Oil	PPL235	Puk Puk / Douglas	800?		Jurassic	Toro Sandstone	Foreland
Esso/Oil Search	PRL 3	Pnyang	2,487		Jurassic	Toro Sandstone	Highland
		<b>Total</b>	<b>36,271</b>	<b>972</b>			
Larus	PPL 326	Vekwala	13,914	186	Jurassic	Toro SS Equivalent	Highland
Larus	PPL 326	Abau - Rigo	818	44	Miocene	Karst	Highland
Larus	PPL 326	Moulo- Konemo	1,739	65	Late Cretaceous	Pale Sandstone	Highland

Data is compiled from Dec 31, 2002 PNG Government data, except when noted otherwise.

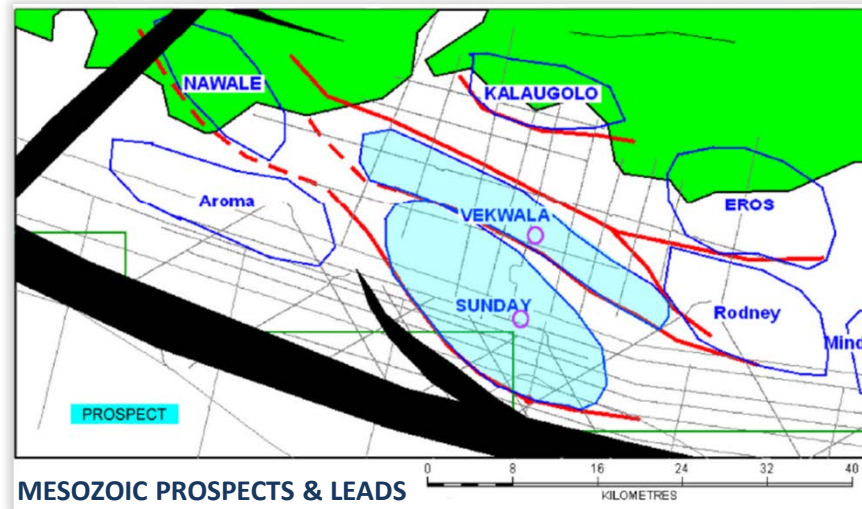
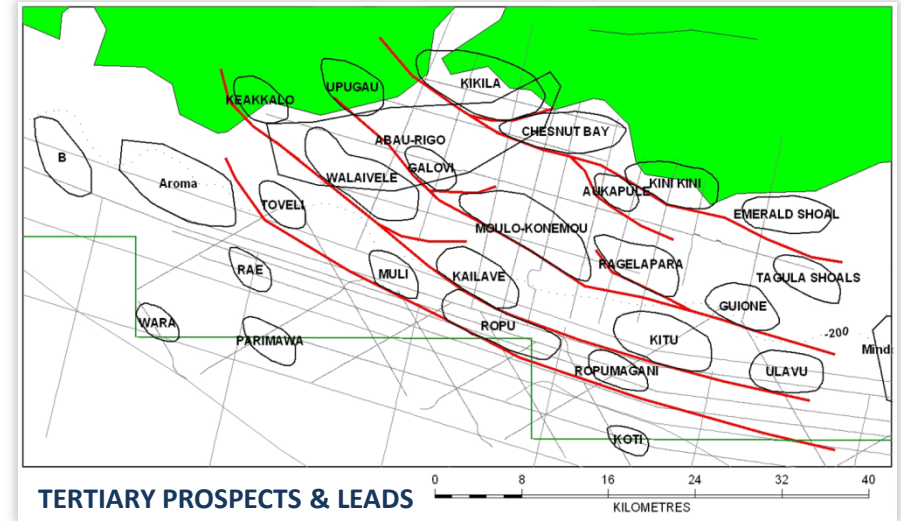
Data noted in red is from Woodmac 2001 data.

Data in blue from Interoil Aug 2010 conference

***...PPL 326 contains 3 identified prospects  
that can be ranked alongside current identified fields***



- Abau shallow water transition
- 2D seismic survey completed
- Shows the former hills now buried – under 800m of mud
- 36 Tertiary Leads and 3 Prospects
- 12 Mesozoic Leads 1 Prospect

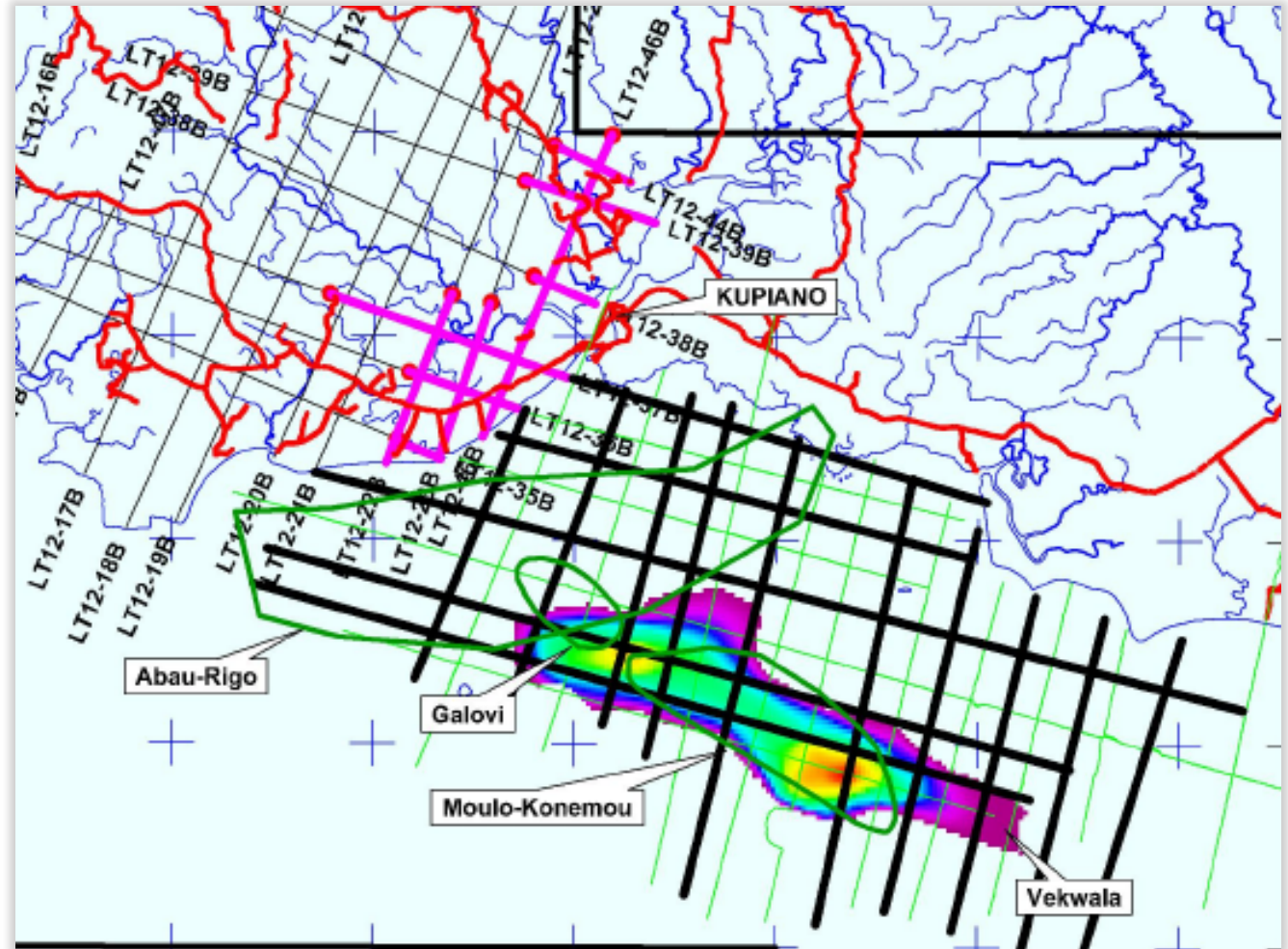


Source: Larus Energy



- Approximate 330 km infill “Torres” survey to further define three strong leads
- One prospect interpreted from the previous seismic acquisition and interpretation planned for last quarter of CY2013

-  Abau Seismic
-  Torres Seismic
-  Planned Onshore Seismic
-  Lines Cut



Source: Larus Energy



## MESOZOIC PROSPECT

- **Vekwala Prospect** – Interpreted Late Jurassic sandstone reservoir. Structure is a big anticline. Water depth of 16-30 metres with a TD of 3,700 metres
  - Estimated unrisked resource – ~13,000 BCF gas and >180 MMbbls oil in place (using published parameters for Hides)

## TERTIARY PROSPECTS

- **Abau-Rigo Prospect** – Interpreted karst Miocene limestone reservoir. Aerial extent is very large. Water depth is around 16 metres with a TD of 800 metres
  - Potential estimated resource numbers in the order of **800 BCF**
- **Moulo-Konemou** – Interpreted Late Cretaceous sandstone reservoir. Structure is a large anticline. Water depth of 16-30 metres with a TD of 2,200 metres
  - Potential estimated resource numbers in the order of **1,700 BCF**
- **Galovi** – Interpreted Late Cretaceous sandstone reservoir. Structure is a small anticline. Water depth of 16-30 metres with a TD of 2,200 metres
  - Potential estimated resource numbers in the order of **150 BCF**

Proven Play Types	PPL326 Main Play Types	Source Timing	Reservoir	Seal	Trap	Risk
Pandora/Pasca	Miocene, Limestones -reefal, Orubadi Shale, reefal, as in Papuan Basin	0.3	0.5	0.5	0.2	<b>1:67</b>
Interoil	Miocene, Limestones(fractured), Orubadi Shale, sub-thrust as in Papuan Basin	0.3	0.1	0.8	0.2	<b>1:208</b>
Highlands/Foreland	Early Cretaceous, Toro equivalent, intra-formational, anticline	0.3	0.3	1	1	<b>1:11</b>
	Miocene Karst	0.8	0.8	0.8	1	<b>1:2</b>

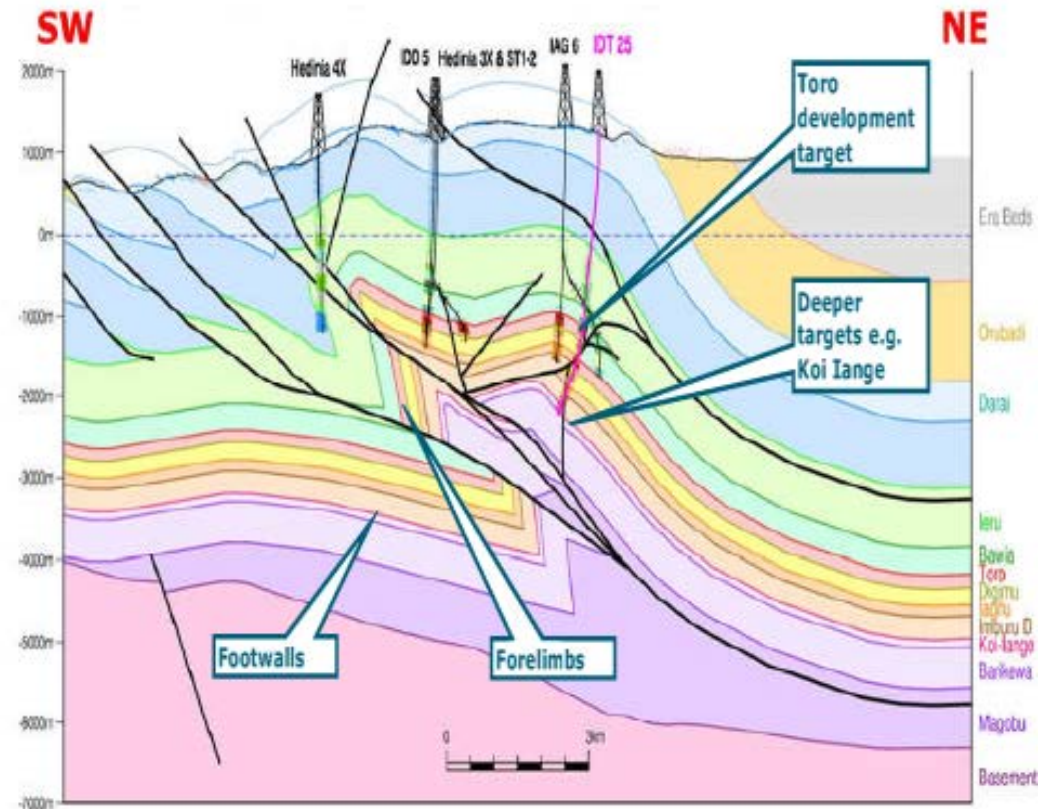
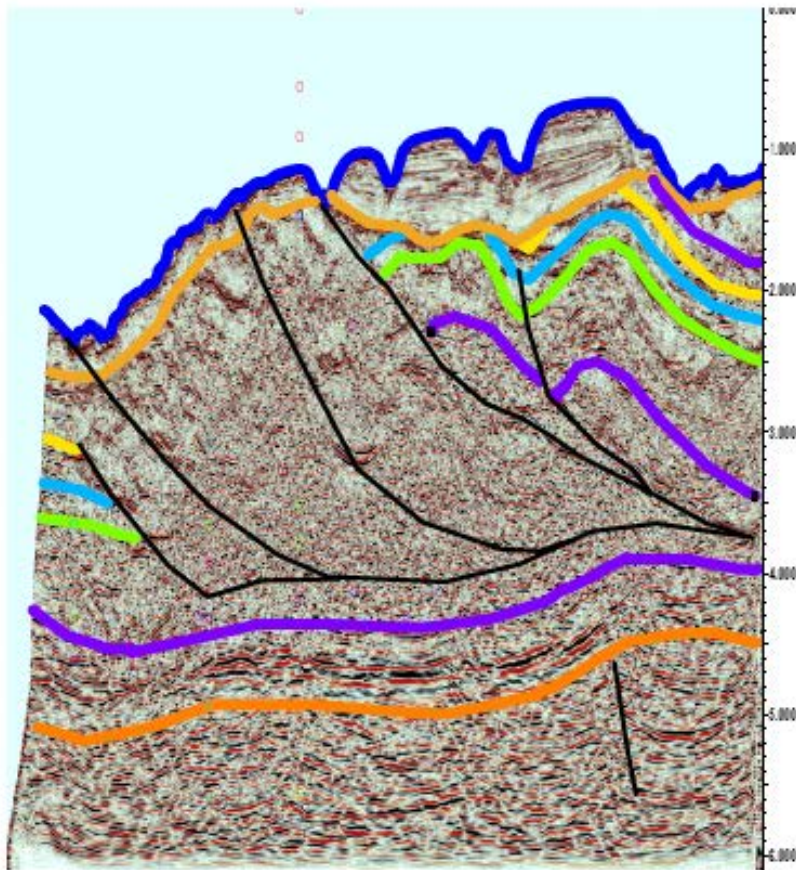
***...PPL 326 contains 12 possible play types three of these are proven in PNG***

***...Highlands Play is main target, Miocene Karst is untested***

- Seismic data to date has identified 50 Mesozoic and Tertiary prospects & leads
  - **only ~12% of block tested**
- Aggregate estimated unrisks resource
  - **>90,000 BCF gas + ~1,500 MMBBLs associated oil /condensate in place**
- Tertiary fairways are developing into a attractive alternate exploration option as although smaller than the deeper Mesozoic targets there are multiple shallow water targets over 1000 BCF gas



- **Baramata Deep Water Seismic Survey LB11-12** (compared to Papuan Basin Highlands Geological Section)

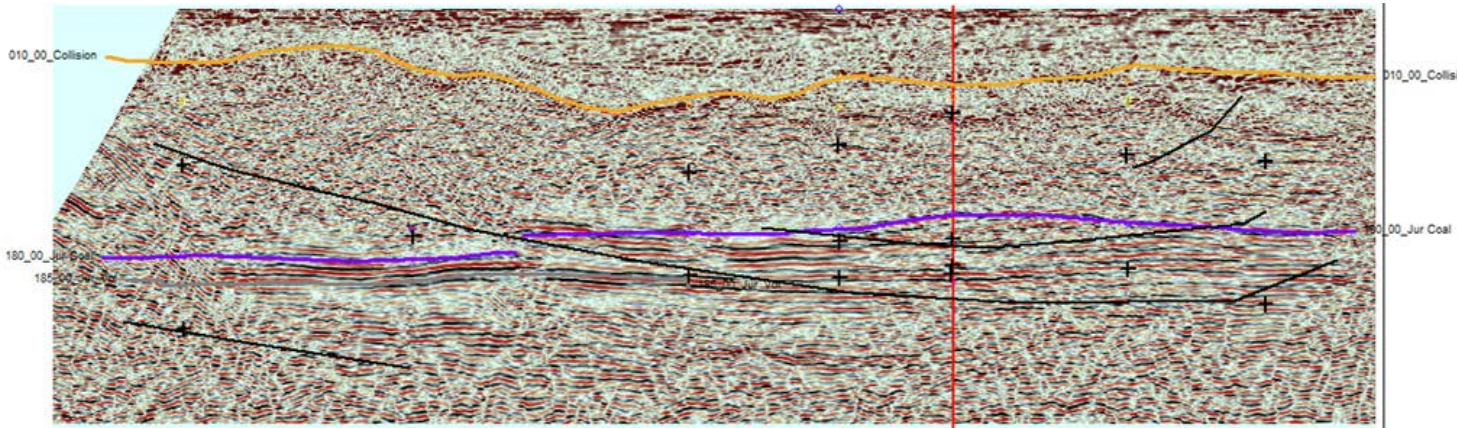


Source: Oil Search Ltd Investor Field Trip Presentation Nov 2011

***...structurally PPL 326 is very much like the Papuan Highlands***

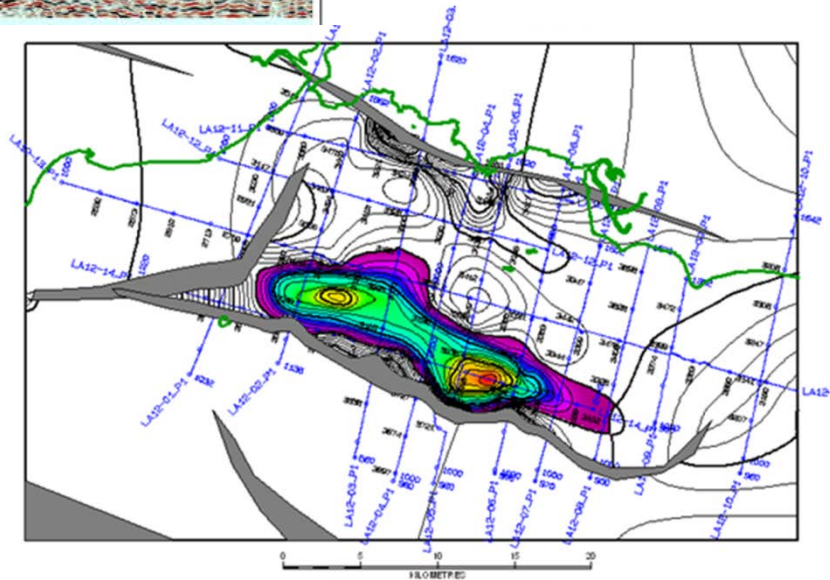
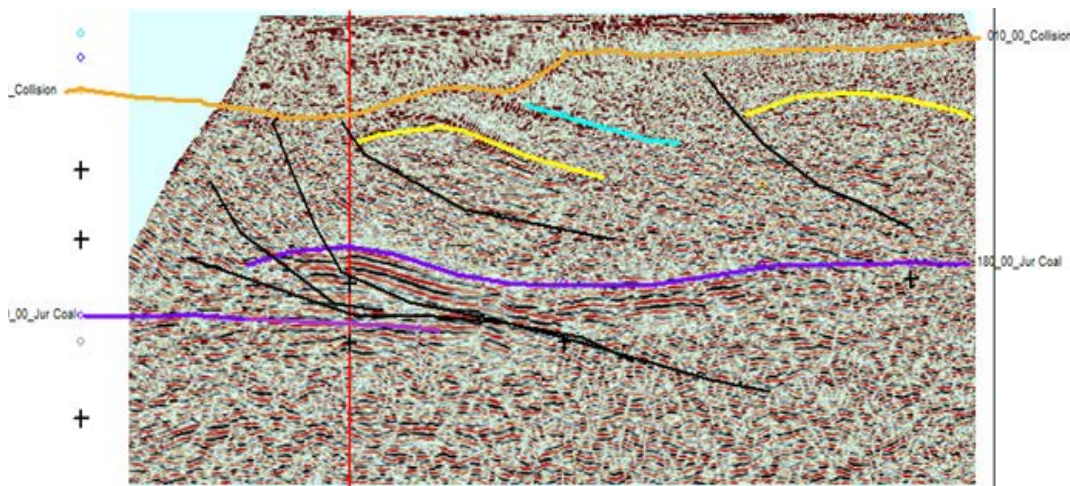


Vekwala



- Vekwala Prospect

Vekwala



- Estimated unrisked resource – ~13 TCF gas and >180 MMbbls oil in place (using published parameters for Hides)



- Funds raised to be used for:
  - Infill offshore seismic
  - Commencement of PNG offshore drilling H1 CY2014

Activity	Target commencement date	A\$
Infill offshore seismic	Q4 2013	\$5 - 6m
Working capital (including capital raising and transaction fees)	24 months	\$2m
Initial drilling program	H1 CY2014	\$25 - 30m
	<b>TOTAL</b>	<b>\$32 - 38m</b>

## PNG is Key Focus

- Highly prospective targets with large oil & gas potential; sufficient to sustain a stand alone LNG project
- Infill offshore seismic prior to drilling an initial target prospect
- Farm-out/JV discussions - onshore & offshore
- Proceed to drilling shallow offshore targets
- Continue to raise awareness of project within PNG with government and other likely key stakeholders utilising our senior PNG Board member

***...Source capital to fund exploration strategy  
to progress to target drilling***

- **Highly prospective, underexplored permit** in Papua New Guinea
- **100% owned permit** located close to major producers and infrastructure
- **Modern exploration** techniques being applied with modern datasets
- **Moving forward to bring in experienced partners** to take exploration to the next level
- **Experienced Board & Management** with significant commercial, technical and management experience in the oil and gas sector and Papua New Guinea

# Contact

**Dr. John Hewson**

Executive Chairman

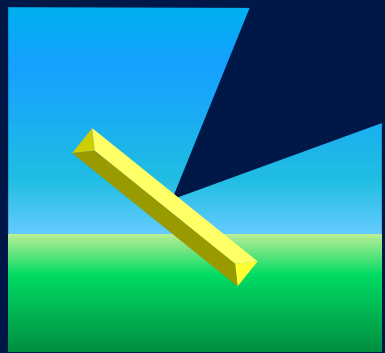
E: [john@larusenergy.com.au](mailto:john@larusenergy.com.au)

Telephone: + 61 2 8215 1519

Facsimile: + 61 2 8215 1600

W: [www.larusenergy.com.au](http://www.larusenergy.com.au)

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