



RIU Good Oil Conference 14 September 2017



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#### Competent Persons Statement: Qualified Petroleum Reserves and Resources Evaluator

Pursuant to the requirements of the ASX Listing Rules Chapter 5, the technical information, reserve and resource reporting provided in this document are based on and fairly represent information and supporting documentation that has been prepared and/or 30 years' experience in exploration, appraisal and development of oil and gas resources - including evaluating petroleum reserves and resources. Mr Morrison has reviewed the results, procedures and data contained in this presentation. Mr Morrison consents to the release of this report and to the inclusion of the matters based on the information in the form and context in which it appears. Mr Morrison is a member of AAPG.

## **Lion Reserves and Resources**



Indonesia Reserves & Resources, 31 Dec 2016 (Recoverable, net to Lion) <sup>1</sup>	Gas/Associated Gas Recoverable (BCF)			Oil/Condensate Recoverable (MMbbl)			Method
Reserves <sup>1</sup>	1P	2P	3P	1P	2P	3P	
Total Proven Reserves <sup>2,3</sup>				0.087	0.118	0.182	Deterministic
Contingent Resources <sup>4</sup>	1C	2C	3C	1C	2C	3C	
Total Contingent Resources	22.00	50.54	0.26 <sup>5</sup>	0.238	0.523	0.44 <sup>5</sup>	Deterministic
Prospective Resources <sup>6</sup>	Low	Best	High	Low	Best	High	
Total Prospective Resources <sup>7</sup>	66.9	180.1	498.5	3.1	8.7	24.2	Probabilistic

#### Notes:

1.Reserve estimates have been calculated using the deterministic method. Analysis of performance trends were used to estimate proved developed reserves. The performance trends associated with new well were used to assess how wells scheduled for future drilling would perform for the purpose of estimating proved undeveloped reserves as well as the probable and possible reserves associated with the future wells. Reserves were estimated only to the expiration date of the PSC.

2.Includes Undeveloped Reserves which are quantities expected to be recovered through future investments: (a) from new wells on undrilled acreage in known accumulations, (b) from deepening existing wells to a different (but known) reservoir, (c) from infill wells that will increase recovery, or where a relatively large expenditure is required to either recomplete an existing well or install production or transportation facilities for primary or improved recovery projects.

3.Undeveloped Probable and Possible reserves are included in this table however it should be noted there is uncertainty on whether these can be recovered prior to PSC expiry in 2019 as they recovery will require significant investment.

4.Contingent resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingent resources have an associated chance of development (economic, regulatory, market and facility, corporate commitment or political risks). These estimates have not been risked for the chance of development. There is no certainty that any portion of the contingent resources will be developed and, if developed, there is no certainty as to either the timing of such development or whether it will be commercially viable to produce any portion of the resources.

5.3C contingent resources have not been calculated for the Lofin Field. The 3C number provided refers to Oseil area only.

6.Prospective resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery (geological chance of success or GCOS) and a chance of development (economic, regulatory, market and facility, corporate commitment or political risks). The chance of commerciality is the product of these two risk components. There is no certainty that any portion of the prospective resources will be discovered and, if discovered, there is no certainty that it will be developed or, if it is developed, there is no certainty as to either the timing of such development or whether it will be commercially viable to produce any portion of the resources. For the prospective resources, an oil case has been estimated below the total depth of the existing Lofin-1 ST well.

7.Aggregation method. Prospective Resources in this Table have been estimated probabilistically at lead level but combined arithmetically to provide the portfolio number. The aggregate P90 may be a very conservative estimate and the aggregate P10 may be a very optimistic estimate due to the portfolio effects of arithmetic summation.

8.No prospective resources provided for the Unconventional Joint Studies or Joint Study Applications as these have not yet been converted to PSC's as at 31 Dec 2016.

# Lion overview - poised for major growth



Fiscally disciplined company with strong management team and exciting portfolio

## **Capital structure**

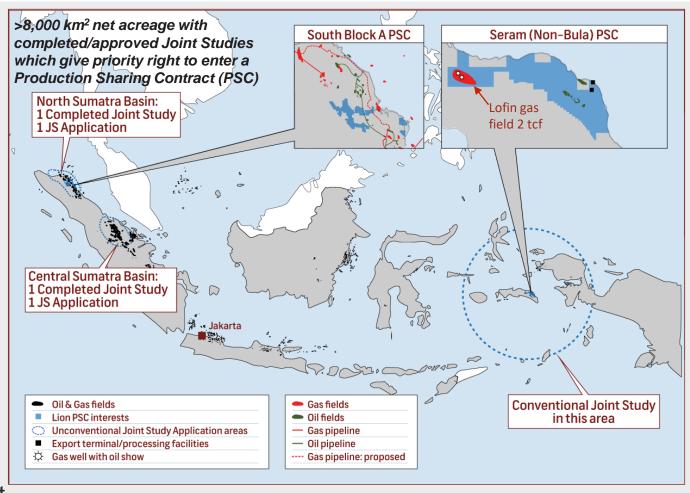
- Shares on issue: ~113m
- Market cap @ 4.0cps: A\$4.5million
- Cash: A\$1.5mil (30/6/17)

## **Major shareholders**

- Risco Energy Investments (46%) –well connected, Indonesian backed
- Tower Energy (6%) highly respected, Indonesian based
- Management (~10%) "skin in the game"

## Finance/organisation

- Maintain highly skilled team
- Seram cashflow positive: ~US\$40,000 pm
- Cost reductions across the company and joint ventures: monthly G&A ~US\$60,000



Active new business program targeting oil and gas production

# Highly experienced team

energy

World class talent, Indonesian expertise, proven track records, diverse skills

#### **Russell Brimage - Chairman**



- Development/production expertise
- Est. Lion in Indonesia 1999
- Founder of Oilserv Australia

#### **Tom Soulsby – Non Executive Director**



- Commercial/financial expertise
- Track record creating value
- Founder Risco, former EMP Director

#### **Kim Morrison - CEO**



- Exploration/operations expertise
- Former Woodside, Shell, Marathon
- Co-founded KRX 2010

#### **Chris Newton – Non Executive Director**



- E&P, commercial expertise
- Former President Santos Indonesia
- Founder Risco, former CEO EMP

## **Advisory Panel**

#### **Amrullah Hasyim – Advisor**

- Liaison, production expertise
- 30+ years experience Indonesia O&G
- Snr position with Halliburton, Ephindo

#### **Dr Andrew Cullen – Technical Advisor**

- O&G geoscientist, unconventional expert
- Worldwide discoveries >700 mmboe
- Snr Advisor Chesapeake, VP Warwick

#### Michael Ellis - Technical Advisor

- Drilling/Operations Engineer
- 35 year in majors through small companies
- 20+ yrs Indonesia ARCO, BP, YPF Repsol

#### Dr Harold Williams - Technical Advisor

- Geochemist PhD, unconventional expertise
- Indonesia Canada, Australia (NT) Europe
- Snr technical position Caltex, Indonesia.

#### **Stuart Smith - Finance Director**



- Accountant, commercial expertise
- AP O&G Research Merrill Lynch
- Leadership roles E&P companies

#### Sammy Hamzah – Principal Advisor



- Commercial, Industry/Govt relations
- Ephindo CEO, Former VP Chevron
- Board of RioTino Indonesia, IPA

## **Company Secretarial/Accounting**

#### **Zane Lewis – Joint Company Sec.**

- Extensive financial/corporate experience
- Member of Chartered Secretaries Australia.
- Joint-founder SmallCap Corporate,

### **Aaron Canicais – Joint Company Sec.**

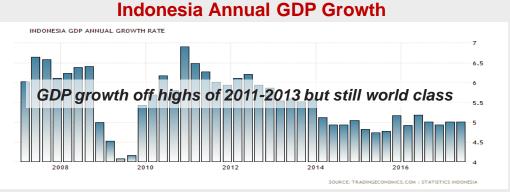
- Audit, assurance, financial expertise
- Member Institute of Chartered Accountants and Governance Institute of Australia

# Indonesia: opportunity rich country; low sovereign risk

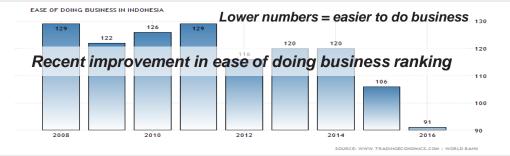


Strong, resilient economy, improvements in ease of doing business/corruption

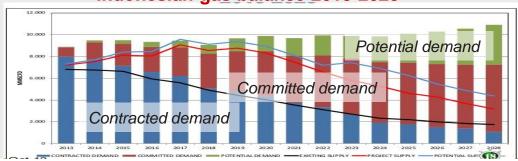
- Population 255 million (4th largest in world)
- Worlds 16th largest economy, forecast 7th largest by 2030
- GDP growth 5.0% year-on-year driven
- Focus on infrastructure: 2011-2025 US\$440 bb expenditure
- S&P raised credit rating in May to investment grade, outlook change to stable
- Electricity growth forecast of 8.7% pa over next 10 years
- Gas consumption growth 5% pa+ (set to become gas importer) - gas prices US\$6-8 mmbtu
- Recent significant improvements flagged to new PSC terms







#### Indonesian gas balance 2013-2028



Source: Trading Economics, Investing in Indonesia 2015 KPMG report, Lion internal, SKK Migas 2013

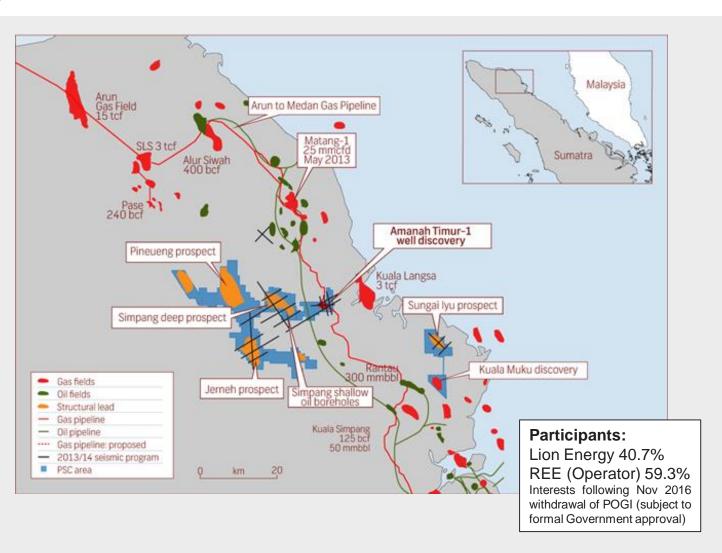
## South Block A PSC - Lion 40.7%



## Underexplored block with multiple plays in prolific North Sumatra Basin

- 183km seismic shot in 2014 high-graded attractive portfolio
- New 400 mmscfd pipeline runs through SBA (Arun LNG regassification terminal to Medan)
- Extension granted to Jan 22, 2021
   Key focus:
- Amanah Timur: January 2017 discovery, appraisal drilling planned early 2018
- Jerneh prospect: large upside gas/cond (Prospective resource<sup>1</sup>: 60-760 bcf)

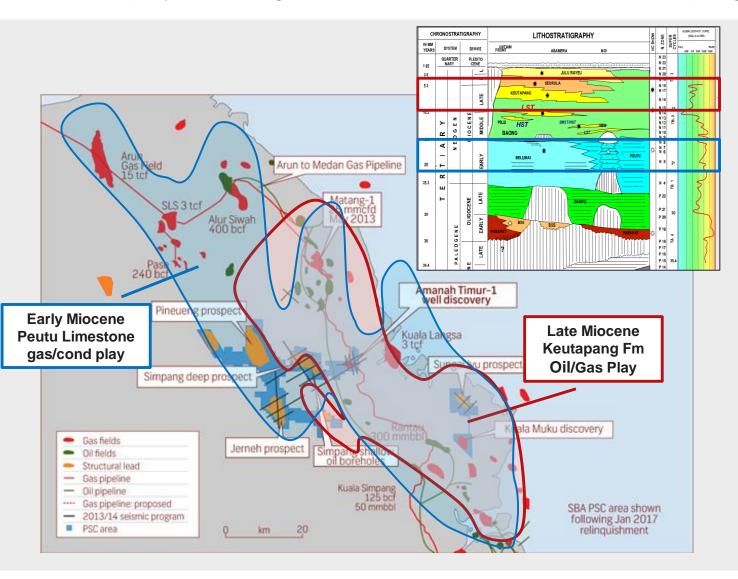
¹Prospective resources: the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.



# SBA PSC located in the heart of world-class hydrocarbon area

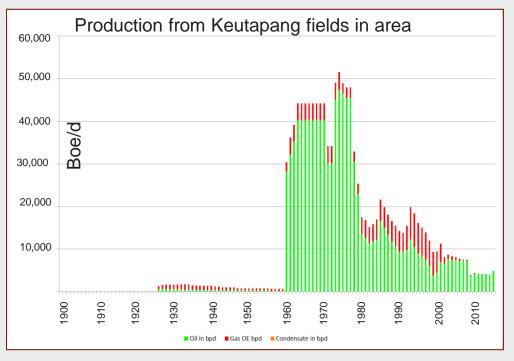


Peutu play:~20 tcf gas, 700 mmbbl condensate, Keutapang play: 550 mmbbl oil, 1.2 tcf gas



Amanah Timur part of Keutapang play

- Production peaked at ~50,000 boepd (late 1970's)
- Limited exploration/appraisal drilling or modern seismic in last 20 years.



# Amanah Timur-1 summary - fast-track development potential



Both gas & oil pay interpreted, Amanah Timur-2 appraisal well will allow testing

- Well TD 347m, P&A due to stuck pipe (planned TD ~550m)
- 3 hydrocarbon zones interpreted, fair-good reservoir potential
- High gas readings (up to 1606 units, C1-C5)
- Oil shows/gas ratio analysis indicate 5-10m+ oil pay
- Condensate rich gas flared during well control operations
- AMT-2 extra casing planned, tested/completed cost ~US\$1.1mm (100%)

## Prospective resource<sup>1</sup> (100%):

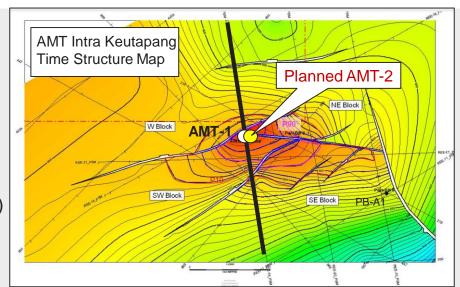
• Oil/Cond (mmbbl) P90: 1.4 P50: 3.3 P10: 7.6

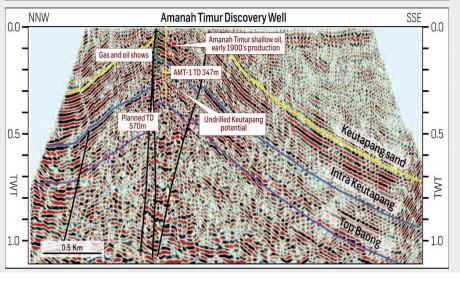
• Gas (bcf) P90: 3.0 P50: 6.0 P10: 13.0

<sup>1</sup>Prospective resources: the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) 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. The prospective resource classification is utilised with respect to the Amanah Timur resource volumes as the interpreted hydrocarbon zones were not able to be tested in AMT-1.Volumes are calculated probabilistically and summed arithmetically.

TD = total depth



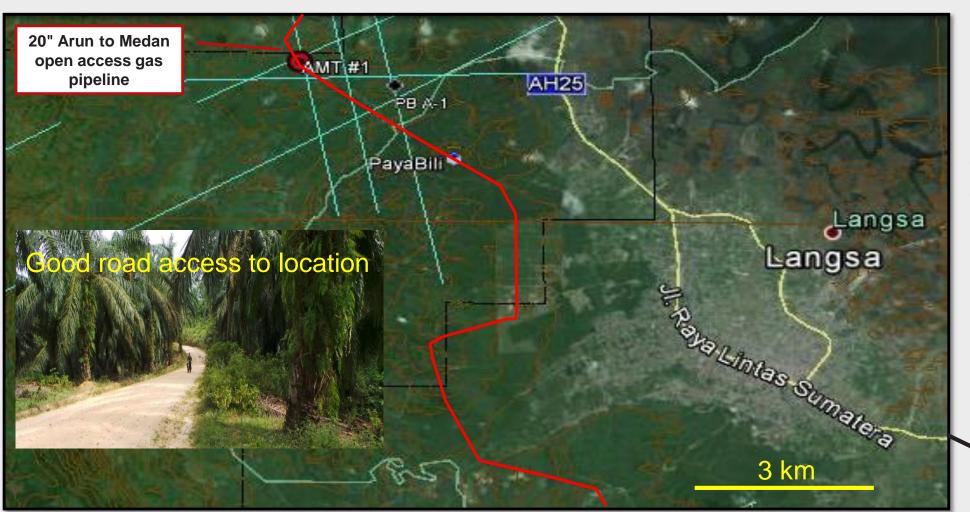




# Amanah Timur-1: approx. 100m from 400mmscfg/d gas pipeline



Langsa city also provides potential market for gas (power plant/CNG)



Discovery located in palm plantation with good roads and gentle topography ~10km to Langsa city (Population 150,000) - ready market for gas

Oil trucked to Rantau oil field 30km to SE

# Jerneh Prospect - 2018 drill candidate



63 km2

Largest undrilled structure onshore North Sumatra with high demand gas market

- 8 km<sup>2</sup> 4-way, up to 63 km<sup>2</sup> sub thrust closure
- Analogue fields PASE (240 bcf), Matang (up to 400bcf)
- Primary objectives: E. Miocene Peutu Lst & Belumai sst
- Well to 1900m total depth would test structure
- Cost estimate ~US\$5.0 million

## **Prospective resource (100%):**

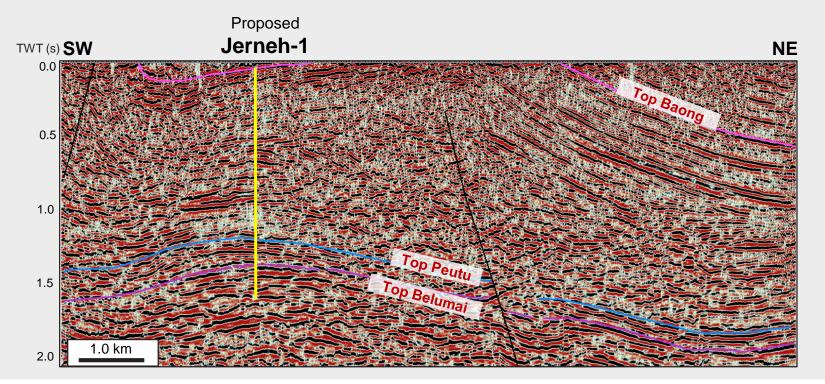
Gas (bcf) **P90**: 64 **P50**: 223 **P10**: 760

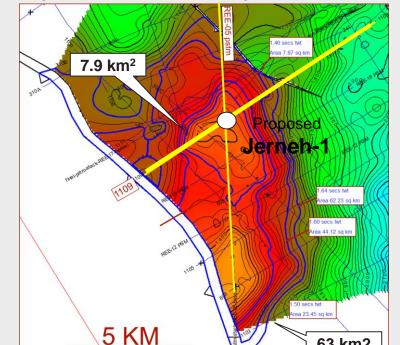
•Cond (mmbbl) P90: 1.5 P50: 5.3 P10: 17.6

**POS =34%** 

Volumes not estimated for Baong turbidite sandstone objective

**Top Peutu Time Structure Map** 

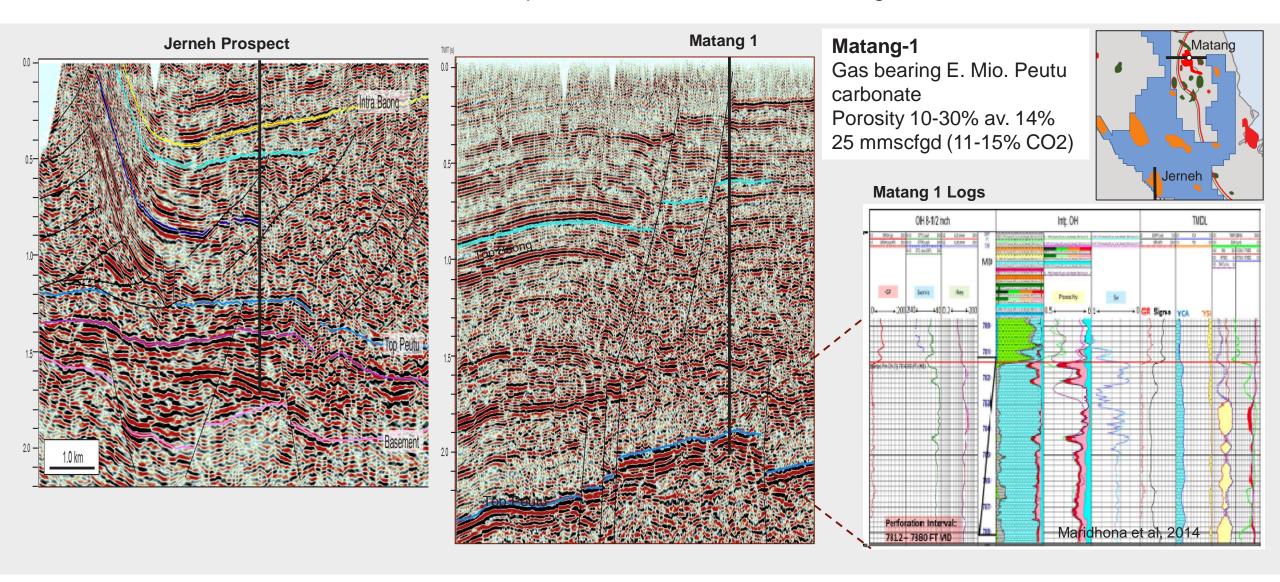




# Jerneh - Matang (2013 100-400 bcf discovery) comparison



Similarities in seismic character - well developed limestone reservoir in Matang-1

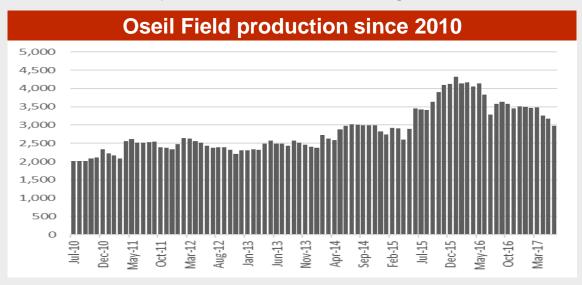


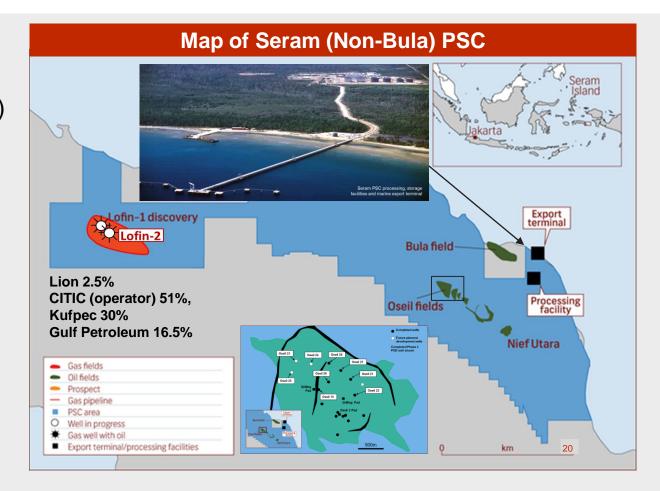
# Seram (Non-Bula) PSC overview - Lion 2.5%



Appraisal and development success, cash flow positive (~US\$40,000 net per month)

- ~17 mmbbl produced since 2003 from Oseil area
- Current ~2500 bopd (~65 bopd net)
- Operating cost ~US\$14.62 per barrel (June 17 qtr)
- 3.5 mmbbl 1P (100%) as at Dec 31 2016
- 17.6 mmbbl 3C contingent oil resource (100%)
- Lofin: 2 TCF 2C contingent resource (100%)
- PSC expiry Oct 2019, JV working on renewal





# Lofin Field - one of largest discoveries in region in recent years

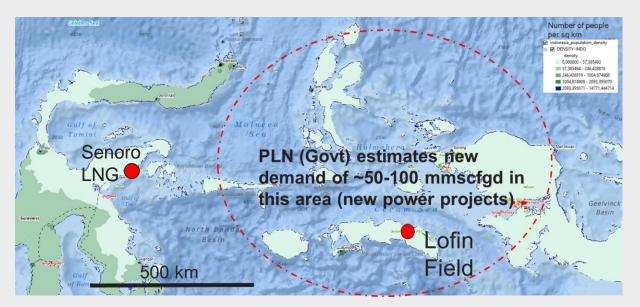


2 tcf gas / 18.3 mmbbl condensate 2C contingent resource/Lion Share 50 bcf /0.5 mmbbl

- 2015 Lofin-2 appraisal proved gas column up to 1300m
- Flowed 17.8 mmcfgd (52/64" choke, 2250 psi flowing pressure)

## **Development options:**

- Compressed natural gas (CNG) or mini LNG to Eastern Indonesian market (50-100 mmscf/d demand)
- LNG 2mm tonne pa (~300 mmscfgd, 8000 bbl cond/d)



# Lofin Structure Schematic Section Lofin-1 ST Lofin-2 Top Manusela 4164m ssTVD Manusela Formation Min Interp, GWC 5270m ssTVD Deep Interp. GWC ~5468m ssTVD TD 5686m ssTVD TD 5686m ssTVD

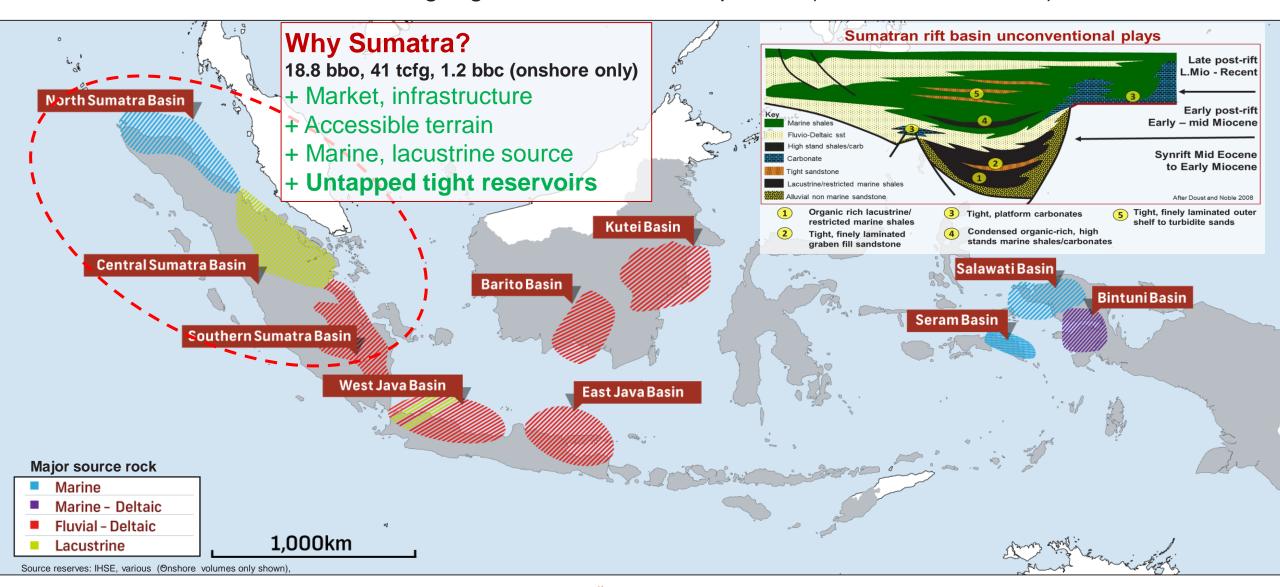




# Significant early mover unconventional position - Sumatra focus



New terms attractive for shale/tight gas & oil ~85% take pre tax (~50% take after tax)



# **Unconventional Update - Lion progressing rights (at low cost)**



Targeting "hybrid" tight gas/oil plays, multi-tcf gas / multi 100's mmbbl liquid potential

## **Bohorok Joint Study** (Lion 55%)

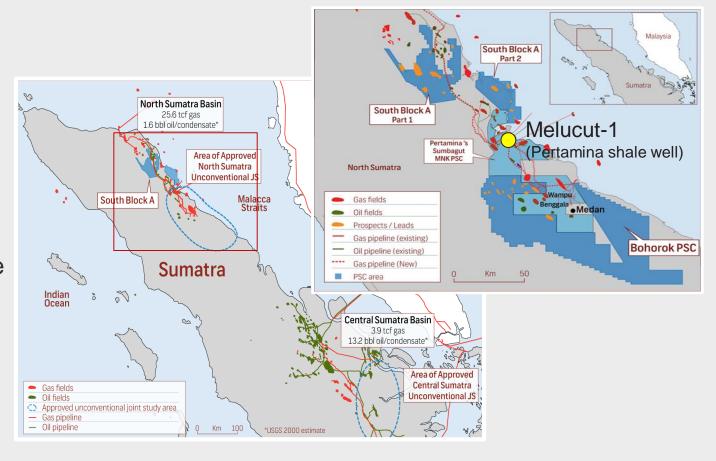
- Completed 2016, positive results
- Possible late 2017 gazettal
- Next to PERTAMINA's Sumbagut PSC containing Melecut-1 Indonesia's first unconventional well - waiting on testing

## **Central Sumatra - Bengkalis JS** (Lion 75%)

- Completed 2016, working on adding acreage
- Basinal location in Bengkalis Graben, hosts major discoveries

## **Additional Joint Study applications**

 High prospective additional North Sumatra Basin area ~5000 sq km, approval pending



Lion has rights to over 8000km<sup>2</sup> net acreage in prolific basins Low cost options over large prospective areas, conventional oil/gas synergies

# New business update

Lion aggressively building our business



#### Rationale for Indonesia

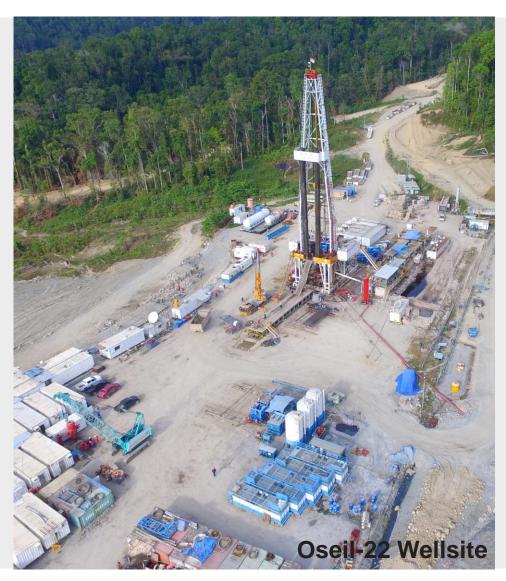
- Significant potential undeveloped fields
- Growing gas demand, high prices (US\$6-8 mmbtu)
- Recent moves to improve terms encouraging

## New Eastern Indonesia conventional area (Lion 100%)

- Priority rights through completed Joint Study,
- Proven HC province
- Predominately onshore with shallow low cost oil and deeper high impact gas

## New opportunities

- Focus on production assets, gas and low cost oil
- Advanced review of three opportunities



# Lion's major growth upside: team, assets, opportunities



Significant near to mid term catalysts to drive share price appreciation

# Investment drivers

# South Block A PSC

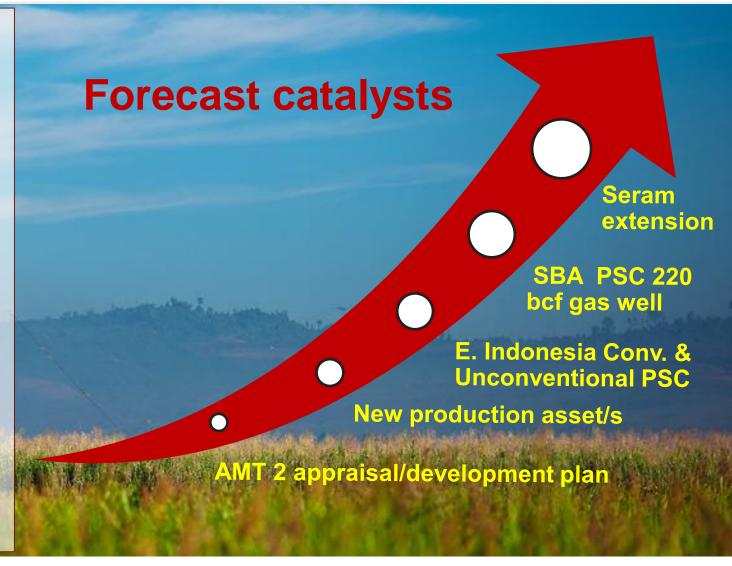
- Near term AMT development opportunity
- Established oil and gas infrastructure
- World class gas prospects with high demand gas market

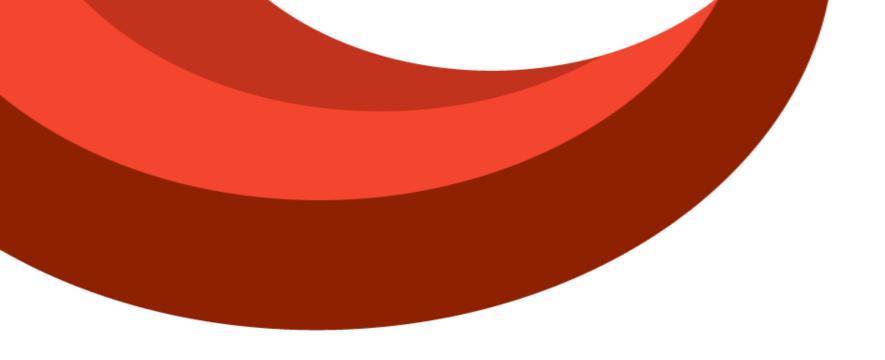
## **Seram PSC**

- Steady cash flow
- Significant oil appraisal potential
- Major upside with Lofin gas field

## **New business**

- Exciting joint studies multi-tcf gas /multi-100s' mmbbl oil potential
- Opportunity rich environment for acquiring oil and gas production





# Thank you

# For more information please contact:

Kim Morrison Chief Executive Officer kmorrison@lionenergy.com.au

Office: +61 8 9211 1500 Mobile: +61 404 490 964