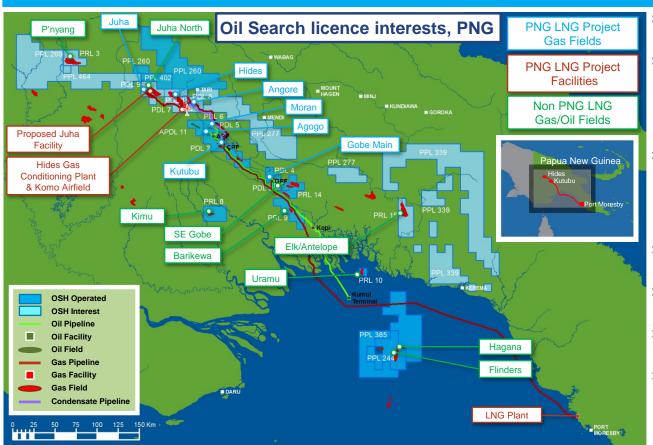
# Credit Suisse 19<sup>th</sup> Asian Investment Conference Hong Kong – April 2016 Oil Search



## **Ø**Oil Search

### Oil Search Profile



- Established in Papua New Guinea (PNG) in 1929
- 29% interest in world-class PNG LNG Project, operated by ExxonMobil, and ~60% interest in all PNG's producing oil fields, operated by OSH
- Pursuing two major LNG growth opportunities potential PNG LNG expansion and Papua LNG Project. Both among most competitive proposed LNG projects globally
- Material gas exploration upside in PNG
- Oil exploration interests in Middle East/North Africa
- » Market capitalisation ~A\$10bn (~US\$7.5bn)
- Listed on ASX (Share Code: OSH) and POMSOX, plus US ADR programme (Share Code: OISHY)

### **2015 Highlights**



	2015	2014	
Total production (mmboe)	29.25	19.27	1
Net (loss)/profit after tax (US\$m)	(39.4)	353.2	•
Core profit¹ (US\$m)	359.9	482.8	•
Operating cash flow (US\$m)	952.7	992.3	•
Total dividend (US cents)	10.0	14.0	•
Net debt (US\$m)	3,318.2	3,452.0	•
Liquidity (US\$m)	1,658.5	1,560.2	1

<sup>1.</sup> Core profit (net profit after tax before significant items) is a non-IFRS measure that is presented to provide a more meaningful understanding of the performance of Oil Search's operations. The non-IFRS financial information is derived from the financial statements which have been subject to audit by the Group's auditor.

- Total production of 29.25 mmboe 52% higher than 2014 and all-time record
- » Core profit of US\$359.9m, US\$39.4m loss after impairment of Taza, Kurdistan
- Final dividend for 2015 of 4 US cents, 10 US cents total for year, 42% payout ratio on 2015 core profit
- Continued progress on gas commercialisation activities in PNG:
  - Both PNG LNG and Papua LNG JVs remain committed, projects offer attractive returns even on revised oil price expectations
- » Business recalibrated:
  - Cost base reduced
  - Resourcing and organisational structure changes
  - Improved productivity
- » Well placed for lower oil price environment:
  - Cash flow positive at <US\$20/bbl, with break-even cash flow AFTER interest, principal repayments and sustaining capex in low US\$30s/bbl
  - US\$1.66bn liquidity available to support growth programmes

## PNG LNG Project – performing well above expectations

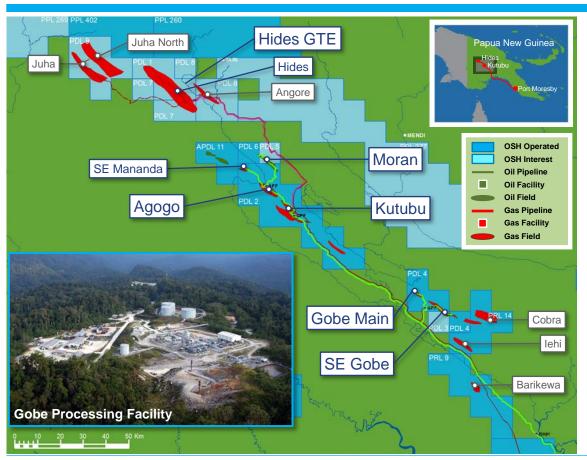


- » Annualised production in 2015 of 7.4 MTPA, 7% above nameplate of 6.9 MTPA:
  - Further upside expected in 2016
- » 101 LNG cargoes sold in 2015:
  - 78 sold under long term contract, ramp-up to plateau level of 6.6 MTPA reached in 4Q15
  - 23 spot cargoes, with > 70% sold to contract customers, remainder to top tier LNG buyers
- 31.5 cargoes of Kutubu Blend and 8 naphtha cargoes sold
- Production optimisation activities progressing well, with additional capacity being achieved both upstream and downstream. Evaluation of potential debottlenecking opportunities ongoing
- Two Angore development wells drilled and suspended for future tie-in
- » OSH contribution:
  - 118 mmscf/d of gas delivered from OSH-operated oil fields (Kutubu, Gobe Main, SE Gobe), ~12% of total Project gas feedstock
  - 10.6 mmbbl (~30,000 bbl/d) of Project condensate handled by OSHoperated liquids export system



## **Ø**Oil Search

### Stable contribution from operated oil fields

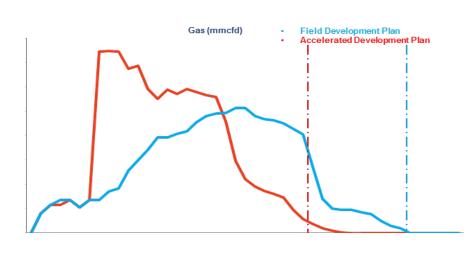


- » 2015 net operated production of 7.0 mmboe:
  - Similar to 2014 production of 7.1 mmboe
  - Excellent outcome given maturity of fields
- » Gas supply from SE Gobe field to PNG LNG Project commenced in May. Gobe Processing Facility now handling >15,000 boepd (~2,000 bopd prior to Gobe Main and SEG gas export)
- » Kutubu and Moran fields remain key producers (>95% total oil produced in 2015)

## Potential value upside from accelerating gas supply from OSH-operated AG fields to PNG LNG



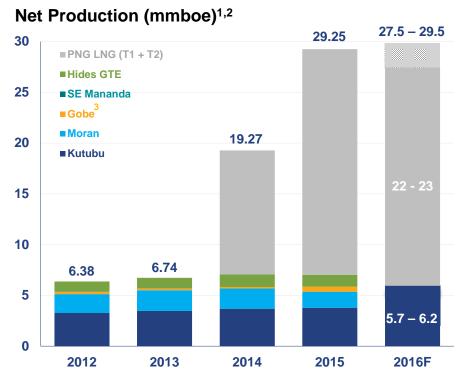
- » Significant value opportunity identified from accelerating gas blowdown of OSH-operated Associated Gas (AG) fields to PNG LNG
- » Potential benefits:
  - Provision of low cost gas to PNG LNG, increased gas delivery flexibility
  - Optimising future capital investment in alternative supply sources
  - Earlier end of AG field life, reducing cost of supporting ageing facilities and wells
  - Build on OSH's existing operator capabilities
  - Material economic value
- » Project team formed, feasibility studies and possible FEED entry in 2016, subject to commercial and fiscal progress
- » Initial discussions with PNG LNG operator completed



### **2016 Production Outlook**



- 2016 production forecast of 27.5 29.5 mmboe, comprising:
  - OSH-operated production: 5.7 6.2 mmboe\*
  - PNG LNG: 22 23 mmboe
- » 2016 focus items:
  - Add value to mature oil fields in low oil price environment through:
    - Optimising operated production by reducing planned downtime, improving reliability of facilities
    - Ongoing focus on well integrity, process safety and optimising facilities uptime
  - PNG LNG OSH deliverables:
    - Continued delivery Kutubu, Gobe Main and SE Gobe (thirdparty) gas to PNG LNG Project, operation of liquids export system via Kumul Marine Terminal
    - Support operator in analysing opportunities for further production optimisation and debottlenecking
    - Work on potential accelerated gas blow down of OSHoperated AG fields



<sup>&</sup>lt;sup>1</sup> LNG sales products at outlet of plant, post fuel, flare and shrinkage

<sup>&</sup>lt;sup>2</sup> Gas:oil conversion rate used from 2014 onwards: 5,100 scf = 1 barrel of oil equivalent (prior years 6,000 scf/boe)

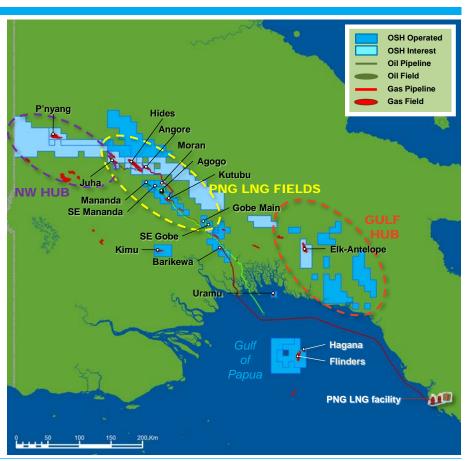
<sup>&</sup>lt;sup>3</sup> Includes SE Gobe gas sales to the PNG LNG Project, which commenced May 2015

<sup>\*</sup> Includes 2.8 - 3.0 bcf (net) of SE Gobe gas sales (OSH - 22.34%) exported to the PNG LNG Project

## **Oil Search**

### Gas growth driving value

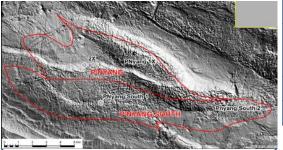
- » Gas commercialisation activities in Highlands and Gulf Province made significant progress in 2015:
  - PNG LNG Project: production optimisation, debottlenecking studies, P'nyang MoU and power delivery
  - Papua LNG Project: positive appraisal, selection of project sites, discussions on financing commenced
  - ~10 tcf (gross) undeveloped gas available, sufficient to underpin both world-class developments
- » PNG LNG expansion and Papuan LNG high priority for JVs, Government and landowners, while many other LNG projects globally are being deferred:
  - Among lowest project break-even costs in region (WoodMac)
  - Attractive returns even under revised oil price scenario
- » Low oil price provides impetus to maximise value of both developments through co-operation and integration
- » Growth projects could double OSH production by early 2020s, with further upside from exploration



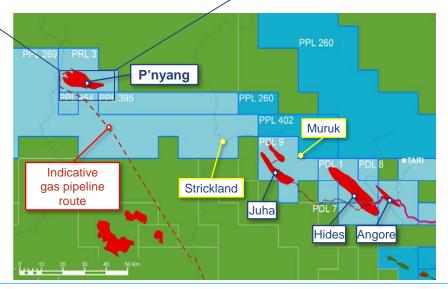
# Potential PNG LNG expansion, underpinned by P'nyang and existing gas fields



- Potential PNG LNG Project expansion includes:
  - High-value production optimisation/debottlenecking
  - Potential third LNG train (~4 MTPA)
  - Delivery of domestic power
- » Benefits of brownfield expansion:
  - Fiscal regime in place
  - Relatively straightforward expansion of project finance facility
  - Reduced capex due to use of existing infrastructure
- » Resource base for potential expansion:
  - Integration of P'nyang (PRL 3) into PNG LNG Project
    - OSH's P'nyang gross 2C contingent resource estimate upgraded from 2.6 tcf to 3.5 tcf
  - XOM/OSH recertification of Foundation Project fields in 2016
- » PNG Government to undertake Development Forums in 2016 ahead of PDL award
- » Preparatory work underway for P'nyang South 2 well, targeted to spud 2H16, to move 2C resource to 1C



PRL 3 (P'nyang)	WI %
ExxonMobil affiliates (operator Esso PNG P'nyang Ltd)	49.0
Oil Search	38.5
JX Nippon	12.5



## **Ø**Oil Search

**PPL 260** 

### Muruk 1 (PPL 402): High potential exploration

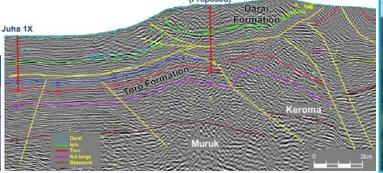
- » Muruk 1 taregted to spud in 2016:
  - Pad currently under preparation for drilling with OSH rig
  - Operated by OSH in co-venture with ExxonMobil
  - High altitude, remote site
- Targeting multi-tcf prospect on-trend with Hides, located north-east of Juha and Juha North
  - ~ 1 in 5 chance of success
  - May de-risk adjacent structures
- » High-impact well and potential new source of gas for expansion or backfill near existing PNG LNG infrastructure



**APPL 545** 

**PPL 260** 

PPL 402	WI %
Oil Search	50.0
Esso PNG Wren Ltd (ExxonMobil affiliate)	50.0





## Papua LNG – potential next LNG development in PNG





 PRL 15
 WI %

 Total
 40.1

 InterOil
 36.5

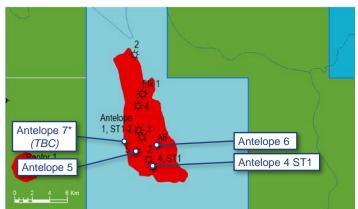
 Oil Search
 22.8

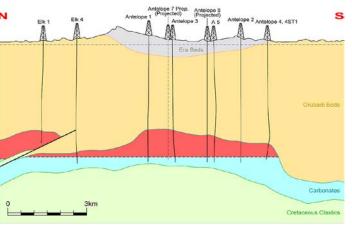
 Minorities
 0.5

- » Significant progress made in 2015:
  - Total SA assumed operatorship of Elk-Antelope (PRL 15) in 3Q15, ramping up in-country presence
  - Locations of key infrastructure sites selected for development and decisions supported by PNG Government
  - Financing activities commenced with financial, legal and tax advisors appointed
- » Completion of appraisal programme and confirmation of resource size will enable selection of final development concept and number of LNG trains:
  - 1 x 5 MPTA or 2 smaller trains
- » LNG marketing, Gas Agreement negotiations targeted to commence in 2H16, ahead of FEED entry in 2017
- » OSH expects final investment decision in 2018 preceded by early works

## Oil Search

### **Encouraging PRL15 appraisal results to date**



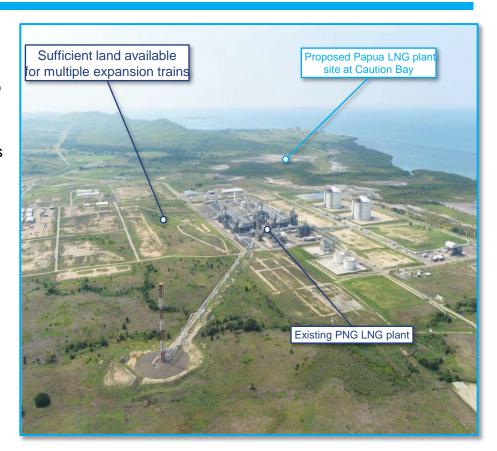


- » Positive appraisal results to date compared to OSH's current resource booking of 5.3 tcf, with potential for resource increase:
  - Antelope 4 ST1 and 5 extended high quality carbonate reservoir to south and west
  - Antelope 5 initial testing (mid-15) confirmed substantial resource base, excellent reservoir quality and deliverability and strong pressure communication between A5 and A1
  - Second production test of A5 (1Q16) confirmed excellent reservoir quality and connectivity with A1 seen in initial test. Further analysis underway to quantify reservoir properties
  - Antelope 6 confirmed productive reservoir and eastern extent of structure towards gas-water contact. DST over upper 66m of reservoir (inc one of three dolomitised intervals) flowed 13 mmscf/d. Pressure gauges in Ant 1 and 5 recorded pressure pulse, indicating direct connectivity with Ant 6
- Further appraisal well, Antelope 7, to assess potential upside to west, under consideration by JV for drilling in 2H16
- » Certification by two independent world-class certifiers (Gaffney Cline and Netherland Sewell) commenced Mar 16, results anticipated midyear. OSH to review 2C resource booking post results
- Exploration prospects in PRL15 being matured by JV to drill-ready status

## Maximising value of next phase of LNG development in PNG



- » Low oil price provides impetus to maximise value of PNG LNG Project expansion and proposed Papua LNG Project through cooperation and integration
- » Co-location of LNG plant sites would provide opportunity to drive capital efficient investment, cost and operational synergies and schedule optimisation
- » Current gross undeveloped resource across both projects of ~10 tcf delivers two x 4 MTPA LNG trains, with option of third expansion train subject to proving up additional resource base
- » Coordinated development would allow developers to optimise employment / contractor deployment and extend increasingly skilled labour force across successive developments
- In-country resources and regulator better able to support one large cooperative development
- » PNG can learn from other global LNG developments and expansions. Failure to achieve high level of co-operation would be missed opportunity



## Time is right to drive greater cooperation and potential integration of PNG's LNG projects



- Focus in 2016 is on resource confirmation and definition of development plans:
  - Timing is right to consider how projects can work together
- Strong case for more cooperation, where it makes sense for all parties. Includes potential full integration, with potential for material benefits for all parties, including PNG Government
- Current oil price and cost environment conducive to alignment
- OSH's role:
  - Unique position with interests in PNG LNG and Elk-Antelope resources and in key NW Highlands and Gulf Province exploration licences
  - Well positioned to support operators, ExxonMobil and Total, and to promote benefits of cooperation
  - Leverage strong foundations extensive in-country operating experience, strong Government, community and landowner relationships
- PNG Government will also have equity in both projects and is supportive of cost-effective and timely development

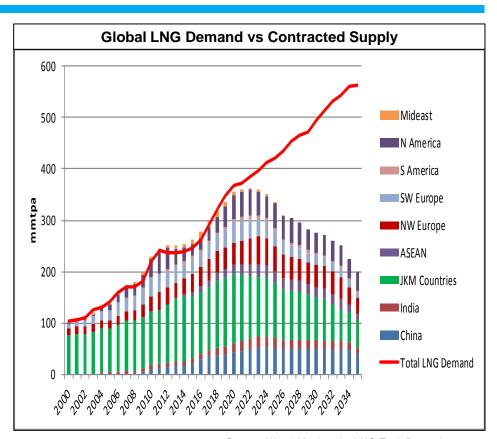
Examples of potential areas of cost savings



## LNG demand expected to exceed supply in early 2020s



- » Global LNG market increasingly competitive new projects in Australia, North America exports ramping-up
- Market over-supplied near term and will only come into balance around 2020
- » Demand expected to surpass contracted supply early next decade, particularly from Asia Pac, due to:
  - Expiry of existing long-term contracts (>25 MTPA from Japan, Korea, Taiwan between 2020-25)
  - Expected deferral/delay of proposed project sanctions due to challenging economics
- Window opening aligns with timeframes for potential PNG LNG third train and Papua LNG, aimed at high quality Asian customers:
  - Good demand expected for low cost, high heating value LNG from PNG

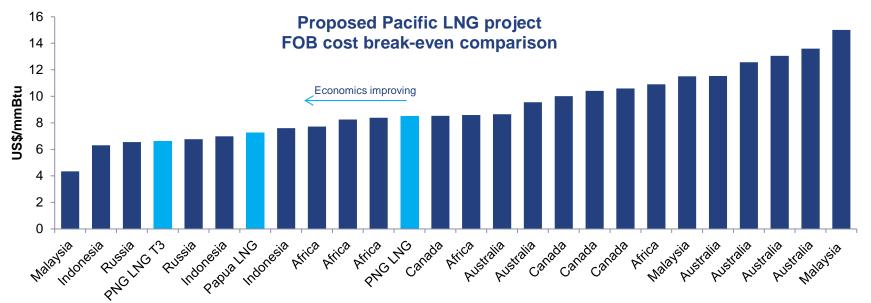


Source: Wood Mackenzie, LNG Tool, December 2015

## LNG projects from PNG competitive versus Australian and global alternatives (WoodMac)



- PNG LNG well placed compared to recently commissioned Australian projects. Production optimisation adding material value, debottlenecking can further improve economics
- » OSH analysis demonstrates PNG LNG train 3 has robust economics
- Papua LNG 1 or 2 train options highly competitive against global LNG project alternatives



Source: Wood Mackenzie, LNG Tool, February 2016

### **Exploration strategy**

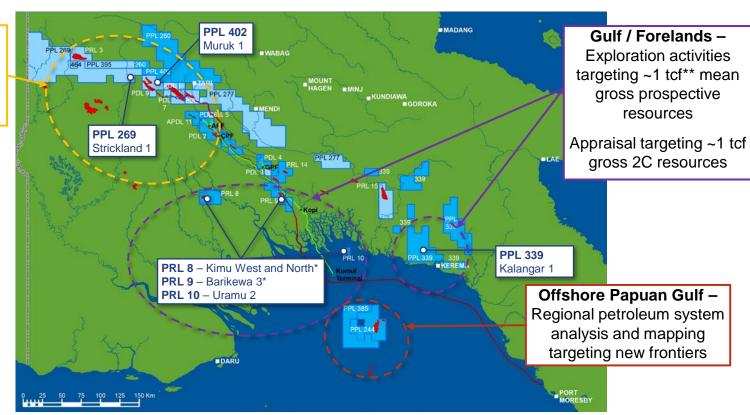


- Exploration approach in light of low oil and gas prices is to reduce costs, focus on core areas and build long-term growth options. Generating opportunities:
  - Renegotiation of drilling, seismic contract rates
  - Fit-for-purpose approach
  - Stronger cooperation with operating partners
  - Increased exploration asset availability
- International activities pared back to focus on PNG:
  - Optimise partnerships with Total and Exxon
  - Eight new licence applications submitted
- In 2015, OSH entered three new exploration licences:
  - PPL 269 (10%) and PPL 402 (50%, operator) Highlands
  - PPL 339 (35%, operator) Gulf Province
- » Eight new licence applications submitted
- » Acquired 194 km of 2D seismic in PNG Highlands and Gulf Province:
  - Muruk (PPL 402) and Strickland (PPL 269) matured for drilling in 2016



### 

#### NW Highlands – Activities targeting ~3-4 tcf\* mean gross prospective resources



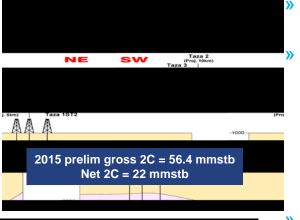
<sup>\*</sup> Mean gross prospective resources. OSH 2015 internal analysis. P50/best estimate equivalent is ~2.7 tcf. All estimates are unrisked

<sup>\*\*</sup> Mean gross prospective resources. OSH 2015 internal analysis. P50/best estimate equivalent is ~0.5 tcf. All estimates are unrisked

<sup>\*</sup> Subject to JV approval

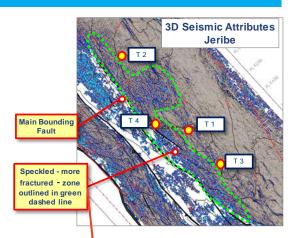
# Taza impairment – Prudent approach to evaluation

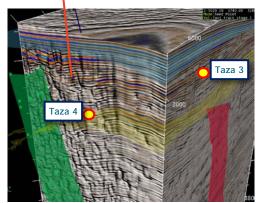




2013 gross 2C = 165.8 mmstb Net 2C = 53 mmstb Taza 2 and 3 wells plus interpretation of 3D seismic completed in 2015

- Results indicate:
  - Fractures largely absent in drilled locations
  - Commercial production from central area unlikely
  - Extensive fracturing delineated along western limb close to main fault
  - Overall resource potential reduced
- Decision made to impair full book value (US\$399m):
  - Reduced resource volumes and resultant economics
  - Prudent approach taken
- Forward plan:
  - Complete technical work
  - Prepare farm-out/divestment package

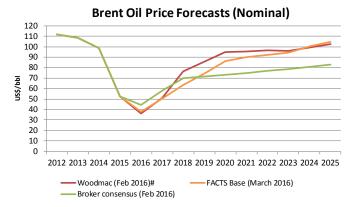




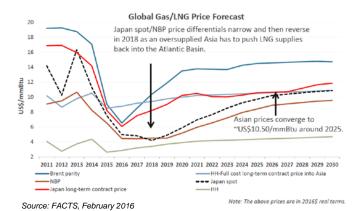
### **Operating environment remains volatile**



- » Short-term fundamentals remain weak:
  - Current production > demand by ~2 mmbopd
  - Inventories at highest level in years, with Iran to ramp-up
  - Weak demand in China, Japan, Europe
- Slobal industry reaction:
  - ~US\$400bn of projects stalled. 5 projects sanctioned in 2015 vs annual average 30-50 in recent years
  - Exploration down 60-70% worldwide
  - Major contraction, ~35% oil and gas personnel made redundant
  - Cost deflation a positive for projects that are economic
- » Expect impact on supply, inevitable that prices will eventually rise
- » LNG price outlook:
  - Lower oil price drives contracted gas price
  - New project commissioning resulting in high level of spot sales
  - Potential oversupply to early 2020's
  - Moving to world-traded commodity



# Woodmac have not yet adjusted their LT price forecast from 2018 onwards post the recent price falls FACTS real price range have been nominalised at 2.5%pa inflation



### PNG and OSH remain well positioned



#### » PNG:

- Production of oil, condensate and LNG highly competitive
- PNG LNG recognised as world-class and reliable project, performing well above nameplate Significant positive impact on perception of PNG, with strong customer, financing and investor confidence
- Potential PNG LNG Project expansion and Papua LNG among most competitive globally, with aligned partners, supportive Government
- Government loan with UBS successfully refinanced in Feb 16, confirming long-term shareholding and removing perceived potential overhang in market

#### » Oil Search:

- Strong production
- 2015 Business Optimisation Programme:
  - Slimmer, fit for purpose organisation with recalibrated cost base
  - Completing delivery of identified pipeline of improvement initiatives and developing further opportunities to deliver ~25% reduction in operated costs in 2016
- Low cash flow break-even:
  - Total cash opex ~US\$13/boe (includes shipping, royalties, corporate costs etc)
  - Cash flow breakeven after opex, interest, principal repayments and sustaining capex in low US\$30's/bbl
- Solid balance sheet and liquidity, significantly reduced capital expenditure obligations
- Sufficient funding to pursue discretionary activities to progress LNG growth





## Helping preserve stable operating environment in PNG



- » PNG LNG expansion and Papua LNG development have potential to significantly benefit national economy
- Operating and political stability essential for long-term sustainability
- » Landowner and community expectations have not changed with fall in oil and gas prices. Need to have transparent, efficient benefits distribution
- » Budget stresses and impacts of drought represent major challenges
- » OSH's unique role in PNG:
  - History deeply rooted in PNG, built on 87 years of operating in-country, strong and genuine relationships
  - Long-standing commitment to social responsibility and sustainable development fundamental to maintaining stable operating environment, the right thing to do
- OSH focus areas:
  - Provision of competitively priced, reliable power Ramu Power Project
  - Partnerships on infrastructure development through Tax Credit Scheme projects (recently delivered Manasupe (Marea) House and PNG National Football Stadium)
  - Partnerships on health programmes, women's empowerment and protection and education (Oil Search Foundation)
  - Capacity development education (both ways), PNG leaderships, new Colombo Plan initiative
- Partnership between State and private sector remains vitally important



### **Summary**

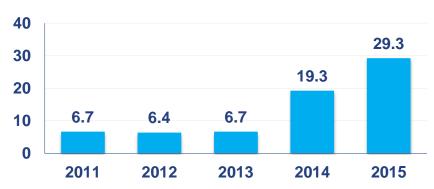


- Strong production, with excellent performance from PNG LNG Project
- » Robust cash flows with low breakeven:
  - Implementation of 2015 Business Optimisation Programme initiatives has recalibrated cost base, improved organisational structure, strengthened gas growth and PNG exploration teams
  - Expect to drive further efficiencies and innovation in 2016, ongoing business improvements being delivered
  - Ensuring PNG stability and building capabilities of PNG staff remain a priority
- Strong balance sheet, with sufficient liquidity to fund all growth activities
- » Activities reprioritised onto projects that can deliver value in low oil price environment
- » Steady progress on potential PNG LNG Project expansion and Papua LNG Project. Both globally competitive and remain commercially sound
- » Monitoring potential to take advantage of low oil price to optimise portfolio and support strategic priorities

### **Appendix 1: Key metrics**



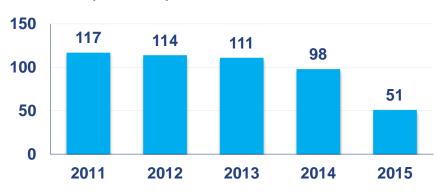
#### **Production (mmboe)**



#### **Net Profit After Tax (US\$m)**



#### Oil Price (US\$/bbl)



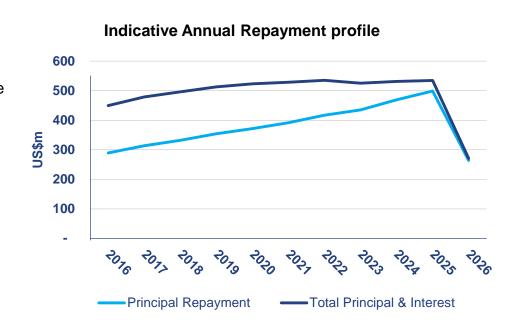
#### **DPS (US cents)**



### **Appendix 2: Financial position**

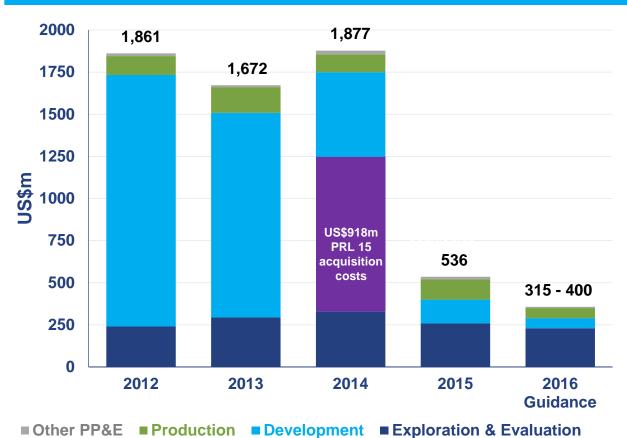


- Strong liquidity position at 31 December 2015 of US\$1.66 billion:
  - » US\$910m of cash (incl. US\$271m of PNG LNG escrowed cash) and US\$748m available corporate revolving facilities
- » Total debt of US\$4.23bn, representing OSH's share of debt drawn under PNG LNG Project non-recourse finance facility:
  - » Principal repayments in June and December
  - Interest and principal to be paid semi-annually over next 10.5 years (mortgage-style repayment profile)
- » PNG LNG 2016 debt service costs (interest and principal) forecast to be ~US\$16/boe



### **Appendix 3: 2016 Investment Outlook**





## 2016 Capital Cost Guidance (US\$315 – 400 million)

- Exploration & Evaluation:
   US\$210 250 million (largely discretionary)
- » Development: US\$50 70 million
- » Production: US\$50 70 million
- » Other PP&E: US\$5 10 million

### **Appendix 4: 2016 Guidance Summary**



Production	2016 Guidance <sup>1</sup>		
Oil Search operated	5.7 – 6.2 mmboe <sup>2,3</sup>		
PNG LNG Project			
LNG	95 – 100 bcf		
Liquids	3.3 – 3.5 mmbbl		
Total PNG LNG Project	22 – 23 mmboe <sup>2</sup>		
Total Production	27.5 – 29.5 mmboe		
Operating Costs			
Production costs	US\$8 - 10 / boe		
Other operating costs <sup>4</sup>	US\$135 – 155 million		
Depreciation and amortisation	US\$13.50 - 14.50 / boe		



<sup>&</sup>lt;sup>1</sup> Numbers may not add due to rounding.

<sup>&</sup>lt;sup>2</sup> Gas volumes have been converted to barrels of oil equivalent using an Oil Search specific conversion factor of 5,100 scf per boe, which represents a weighted average, based on Oil Search's reserves portfolio, using the actual calorific value of each gas volume at its point of sale.

<sup>&</sup>lt;sup>3</sup> Includes 2.8 – 3.0 bcf (net) of SE Gobe gas sales (OSH – 22.34%) exported to the PNG LNG Project.

<sup>4</sup> Includes Hides GTE gas purchase costs, royalties and levies, selling and distribution costs, rig operating costs, corporate administration costs (including business development) and inventory movements.



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