

# Macquarie Australia Conference May 2016



## Oil Search



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ARBN 055 079 868

ASX: OSH | POMSoX: OSH US | ADR: OISHY

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## Strong performance in challenging environment



## Oil Search

- » Strong production from high quality, low cost quality assets with low sustaining capital requirements:
  - PNG LNG Project performing well above expectations
- » OSH generating positive cash flows even at current oil prices:
  - Cash flow breakeven (opex plus interest) in 2016 forecast at ~US\$19/bbl and in low US\$30s/bbl after principal repayments and sustaining capex
- » Solid balance sheet with liquidity of ~US\$1.7bn
- » Making progress on high-potential LNG growth opportunities. Expansion of PNG LNG and Papua LNG Project assessed to have breakeven costs in lowest quartile in region
- » Major near-field gas exploration/appraisal campaign planned for 2016/2017+
- » Number of initiatives implemented in 2015 to recalibrate costs and prioritise capital spend, reaping rewards in 2016:
  - ~25% reduction in controllable costs expected in 2016, ~35% reduction in capex
  - Further innovation and improved efficiencies planned in 2016



# PNG LNG Project – performing well above expectations



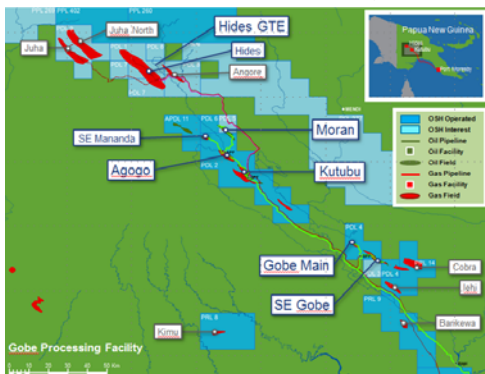
- » Annualised production in 1Q16 at record rate of 8.0 MTPA (16% above nameplate):
  - » 28 LNG cargoes sold in 1Q16, 24 long term, four spot, with LT contracts now at plateau. Eight cargoes of Kutubu Blend and three naphtha
- » Very high facilities uptime from LNG trains and HGCP plus strong productivity from wells
- » Evaluation of potential debottlenecking opportunities ongoing
- » OSH contributes gas from OSH-operated oil fields (Kutubu, Gobe Main, SE Gobe) (~13% of total Project gas feedstock in 1Q16) plus handles export of all Project condensate through liquids export system



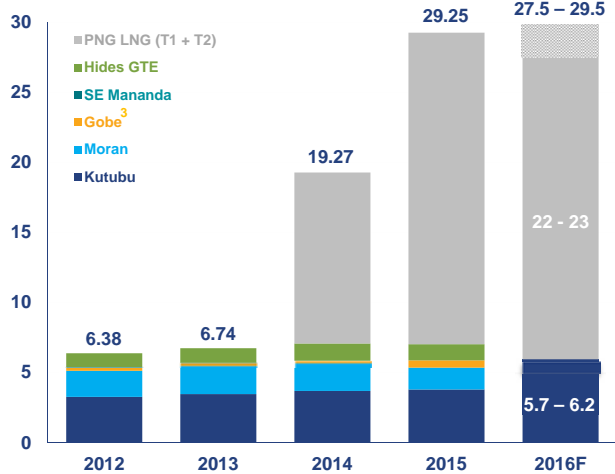
## 2016 Production Outlook



- » 2016 production forecast of 27.5 – 29.5 mmboe, comprising:
  - OSH-operated production: 5.7 – 6.2 mmboe\*
    - Oil fields performing well, 1Q16 production of 1.8 mmboe
  - PNG LNG: 22 – 23 mmboe
    - PNG LNG plant maintenance in April factored into OSH estimate of FY rate of 7.5-7.9 MTPA (gross)



Net Production (mmboe)<sup>1,2</sup>

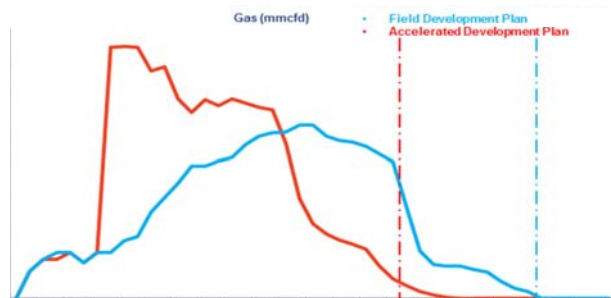


<sup>1</sup> LNG sales products at outlet of plant, post fuel, flare and shrinkage  
<sup>2</sup> Gas:oil conversion rate used from 2014 onwards: 5,100 scf = 1 barrel of oil equivalent (prior years 6,000 scf/boe)  
<sup>3</sup> Includes SE Gobe gas sales to the PNG LNG Project, which commenced May 2015

\* Includes 2.8 – 3.0 bcf (net) of SE Gobe gas sales (OSH – 22.34%) exported to the PNG LNG Project

# 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 end 2016, subject to commercial and fiscal progress



# Gas growth to drive 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 nearly 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:

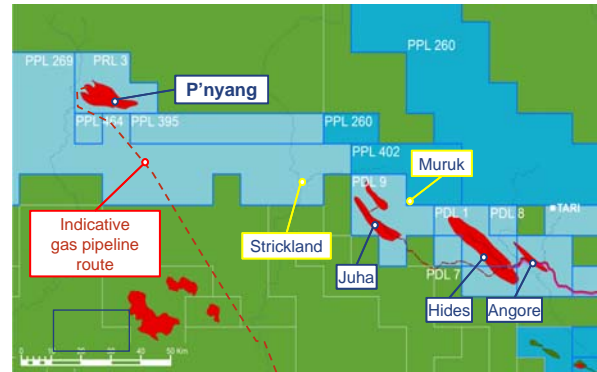
- High-value production optimisation/debottlenecking:
  - ~ 1+ MTPA above nameplate already achieved
- Potential third LNG train (~4 MTPA)
- Delivery of domestic power

» 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. Preparatory work underway for P'nyang South 2 well, targeted to spud 4Q16, to move 2C resource to 1C
- Recertification of Foundation Project fields in 2H16



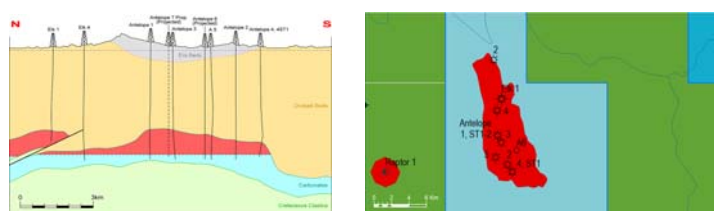
PRL 3 (P'nyang)	WI %
ExxonMobil affiliates (operator Esso PNG P'nyang Ltd)	49.0
Oil Search	38.5
JX Nippon	12.5

# Papua LNG – potential next LNG development in PNG



- » Positive appraisal results from Ant 4, 5 and 6. Potential for resource increase from OSH's current booking of 5.3 tcf, with further appraisal well, Antelope 7, under consideration for drilling in 2H16
- » Certification by two independent world-class certifiers (Gaffney Cline and Netherland Sewell) commenced mid-Mar 16, results anticipated mid-year
- » 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
- » JV maturing PRL15 exploration prospects to drill-ready status

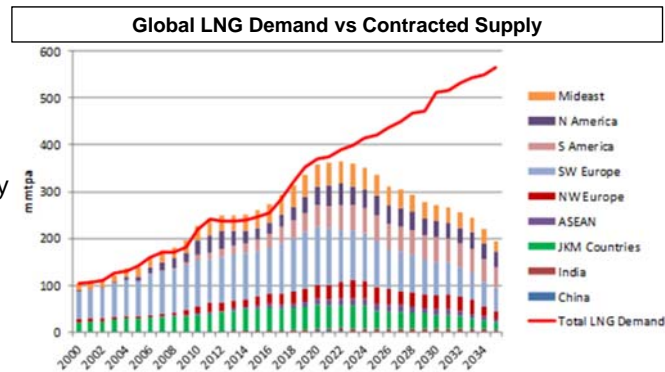
PRL 15	WI %
Total	40.1
InterOil	36.5
Oil Search	22.8
Minorities	0.5





# LNG industry: Undergoing fundamental change **Oil Search**

- » Current oversupply through commissioning of major projects in Australia, US
- » Gas prices globally have normalised, Asian spot LNG now trading in US\$4-5/mmBtu range
- » More globally connected and significantly more LNG being traded, increased pricing and delivery flexibility with short–medium term commitments
- » Project delays or deferrals globally, with economics challenging
- » Medium and long term demand growth in Asia remains intact:
  - Expiry of existing long-term contracts (>25 MTPA from Japan, Korea, Taiwan between 2020-25)
  - 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



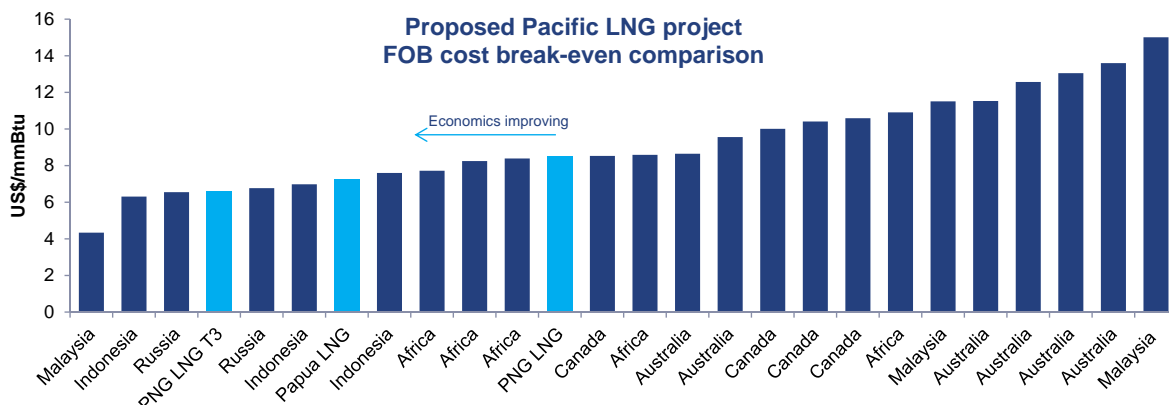
Source: Wood Mackenzie, LNG Tool, December 2015

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



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- » 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



## Lessons from other projects



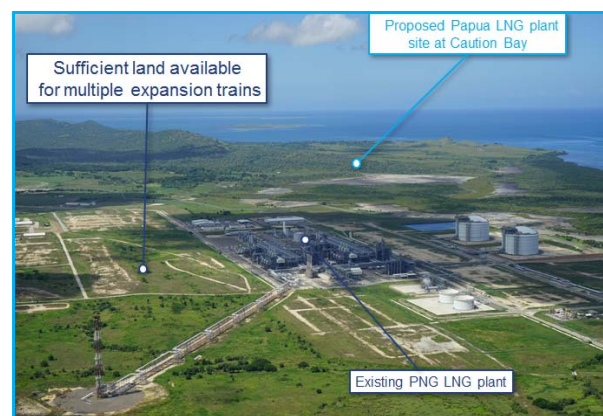
Image courtesy of Santos

- » PNG can learn from other global LNG developments and expansions
- » Value destruction has been typical in many LNG developments:
  - Governments and shareholders the major losers
- » Maximising capital efficiency is a corporate obligation to all stakeholders
- » Lessons for PNG:
  - Cooperation in multi train developments will deliver higher value for all stakeholders
  - Next 12-18 months critical in pursuing development coordination
  - Failure to achieve high level of co-operation would be missed opportunity

## 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 proven 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



# 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 will be major beneficiary of cost-effective and timely development
- » Integrated LNG projects have been successfully delivered globally (Trinidad, Egypt and Qatar)

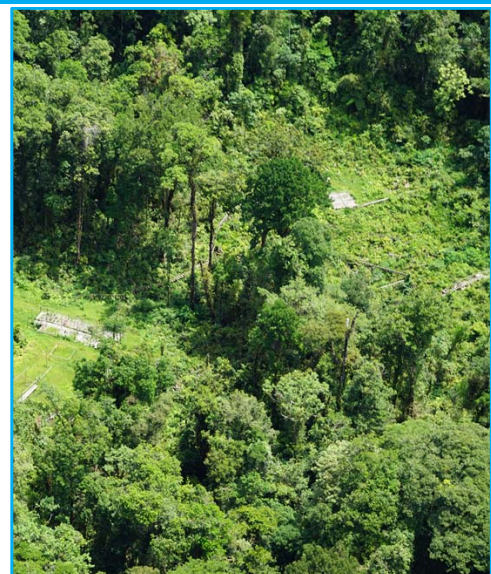
Examples of potential areas of cost savings

Base Cost	Existing Contractor Rel. Contractor/Op Synergy
	Lessons Learned
	Execution Experience
Infrastructure	LNG Tank
	Jetty Spur
	Accommodation
	Pipeline Corridors
	Access Roads
	Warehousing
Front end	Shipping Channel
	Site foundation surveys
	Pre-FID costs
	FEED
KPS	Environmental Approvals & Surveys
	Export System
	Pipeline Distance
Project	Improved Schedule
	PMT
	Contractor Execution Plan
	Detailed Engineering
	Reduced Contingency
Process	Commissioning & Start up
	Pre-treatment
	Sparing
	LNG, LPG and NGL Process

# Significant remaining exploration upside in PNG



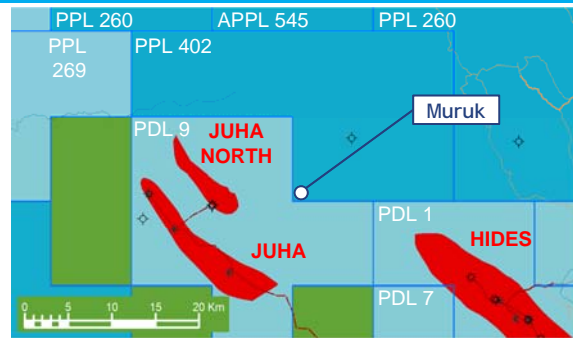
- » Exploration approach in 2016 is to reduce costs, focus on core areas and build long-term growth options:
  - Renegotiation of drilling, seismic contract rates
  - Fit-for-purpose approach
  - Stronger cooperation with operating partners
  - Increased exploration asset availability
- » International activities pared back to focus on PNG:
  - Optimise partnerships with Total and Exxon
- » Nine new PNG licence applications submitted
- » Exploration:
  - Muruk (PPL 402) and Strickland (PPL 269) matured for drilling in 2016
  - Preparations to drill Kalangar (PPL 339) in 2017
- » Appraisal:
  - Possible Antelope 7 well (PRL 15) in 2H16
  - Preparations to drill Kimu West (PRL 8), Barikewa 3 (PRL 9) and Uramu 2 (PRL 10) in 2017



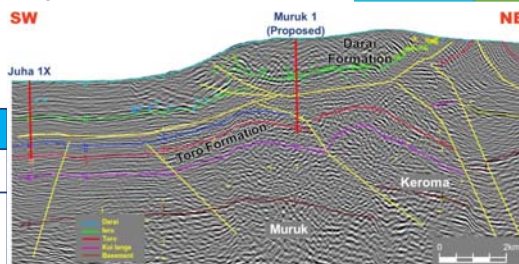


# Muruk 1 (PPL 402): High potential exploration Oil Search

- » Muruk 1 targeted to spud in 4Q16:
  - Operated by OSH in co-venture with ExxonMobil
  - Rig site preparation delayed due to bad weather, revised spud date aligned to coincide with dry season
- » 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



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



## Helping preserve stable operating environment in PNG



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- » Operating and political stability essential for long-term sustainability
- » Landowner and community expectations have not changed with oil price fall
- » Budget stresses and impacts of drought represent major challenges
- » OSH's unique role in PNG:
  - 87 years 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). Includes Public-Private Partnership agreements with Government for Hela Regional Hospital
  - Capacity development – education (both ways), PNG leaderships, new Colombo Plan initiative
- » Partnership between State and private sector remains vitally important
- » Government loan with UBS successfully refinanced in Feb 16, confirming long-term shareholding and support as well as removing perceived potential overhang in market





# Summary

- » Strong production, with excellent performance from PNG LNG Project
- » Robust cash flows with low breakeven
- » Steady progress on potential PNG LNG Project expansion and Papua LNG Project. Both globally competitive and commercially sound, with opportunity to maximise value and returns through cooperation/integration
- » Recalibrated cost base, improved organisational structure:
  - Expect to drive further efficiencies and innovation in 2016
- » Strong balance sheet, with sufficient liquidity to fund growth activities
- » Monitoring opportunities to take advantage of low oil price to optimise portfolio and support strategic priorities

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