



# **Investor Field Trip 2010**

15 - 17 November 2010



#### Investor Field Trip 15 - 17 November 2010

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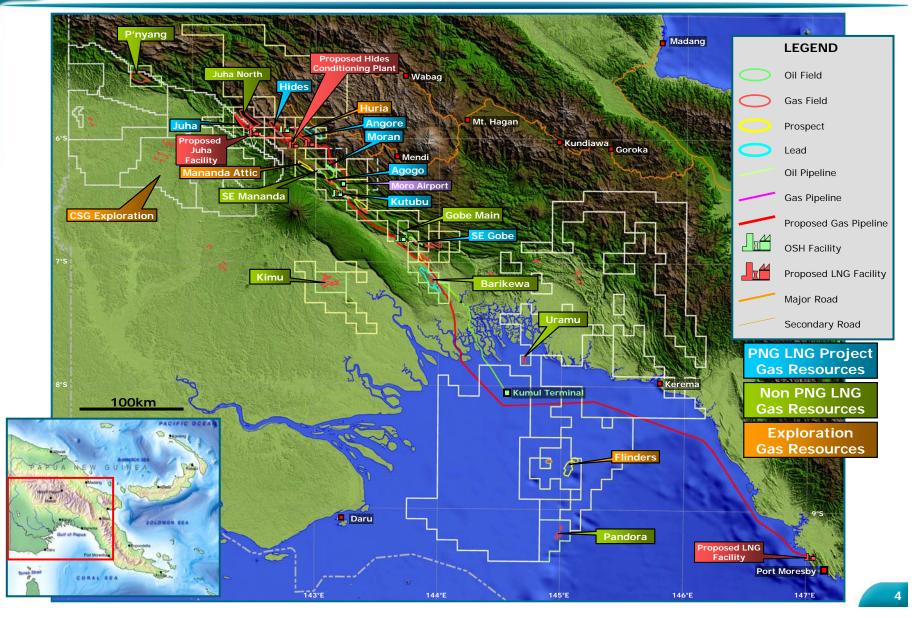
# Field Trip Route







# Key Oil and Gas Fields, PNG



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## DAY 1





# Visit to PNG Plant Site and POM Tech training facility



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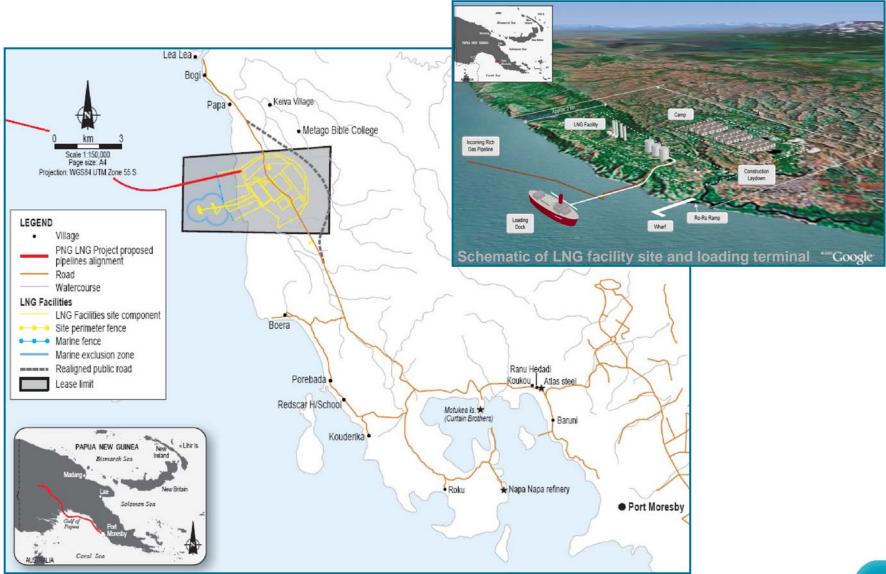


#### **PNG LNG Plant**

- LNG facility to be located on State Portion 152 near Port Moresby
- 2 x 3.3 MTPA LNG trains
- LNG storage tanks at the facility
- LNG loading jetty off the coast for tanker ships to berth and load
- Supporting facilities and infrastructure:
  - Large camp for construction (~7,500) and operations (~500) personnel
  - Upgrade of existing road between LNG facility and Port Moresby and rerouting of the road around the LNG facility to maintain traffic flow to the north
  - Temporary laydown areas during construction only



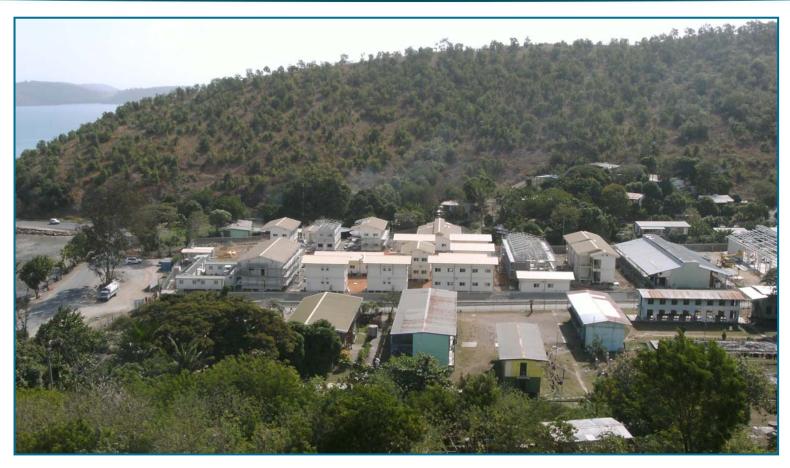
# **LNG Facility Location**







# Port Moresby Construction Training College



 Being constructed at site of the existing Port Moresby Technical College (POM Tech)



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#### Operations & Maintenance Trainees



- Trainees selected from across PNG
- Training to include 12 months of Advanced Skills Training overseas

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# Training the construction workforce

- First class of 48 trainees graduated in June
- Class included 8 women
- Two more groups of 48 have begun training
- Construction continues on Juni and PomTech training facilities







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# DAY 2





# PNG LNG Project Update



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## PNG LNG Project Overview

- 6.6 MTPA, 2 train development, operated by ExxonMobil
- Over its 30-year life, PNG LNG expected to produce over 9 tcf of gas and 200+ million barrels of associated liquids
- Initial Equities:
  - ExxonMobil 33.2%
  - Oil Search 29.0%
  - Kroton2 (PNG Government) -16.8%
  - Santos 13.5%
  - Nippon Oil 4.7%
  - MRDC (PNG Landowners) 2.8%
- Fully contracted to Asian buyers, with continuing strong market interest
  - Sinopec (China) ~2.0 MTPA
  - TEPCO (Japan) ~ 1.8 MTPA
  - Osaka Gas (Japan) ~1.5 MTPA
  - CPC (Taiwan) ~ 1.2 MTPA





## PNG LNG Project Overview

Main EPC contracts awarded in 2009/10:

– LNG Plant: Chiyoda/JGC

Offshore Pipeline Saipem

Hides Gas Plant CBI/Clough JV

Onshore Pipeline
 Spiecapag

Infrastructure
 McConnell Dowell/CCC JV

Early Works Clough/Curtain JV

Associated Gas (OSH only) Aker Solutions

 Project in early stages of four-year construction period. Activities focused on infrastructure, including road and bridge works, telecommunications and building camps to house construction workforc

 First LNG sales date of 2014 and capital cost estimate of US\$15 billion unchanged

**PNG LNG** 



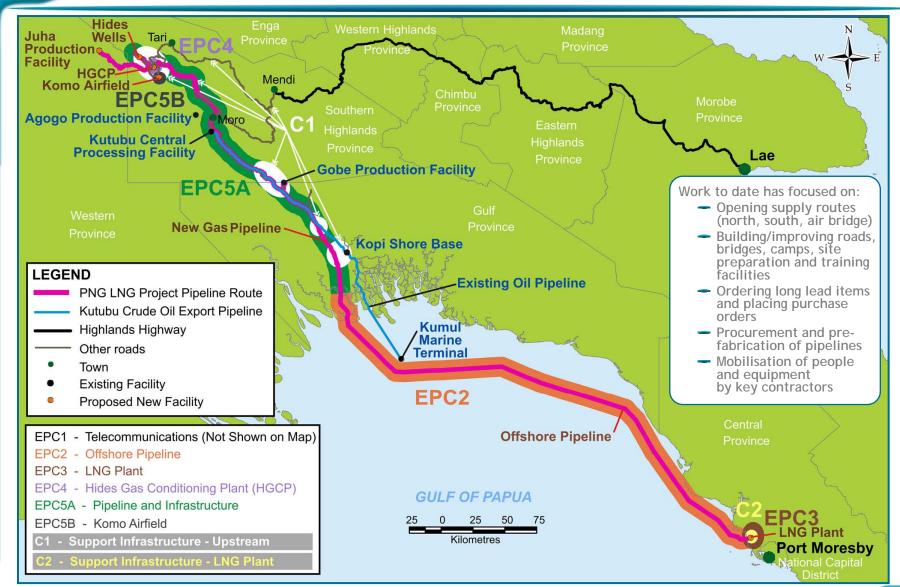
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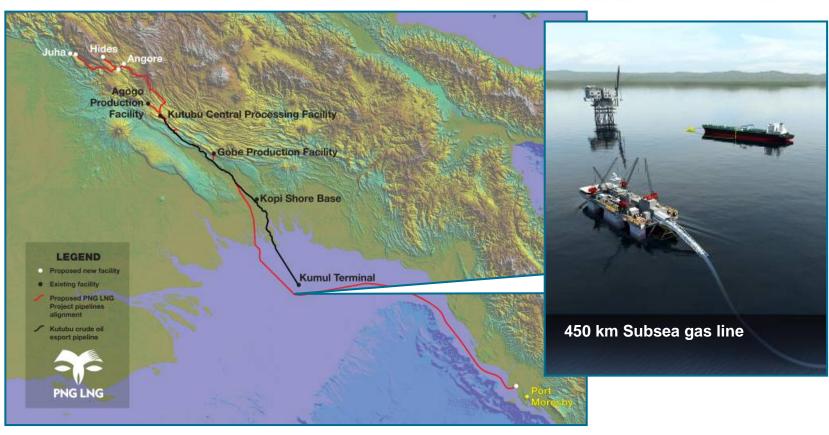
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# PNG LNG Project Construction Activities Planned/Underway





## Offshore Pipeline

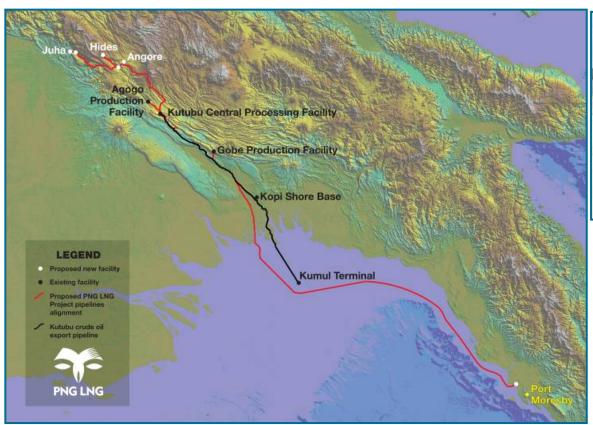


- -200,000 tonnes of steel
- -Less than 100 metres deep
- Offshore pipeline route designed to avoid shipping and critical wildlife habitat





# Omati and Kopi Base











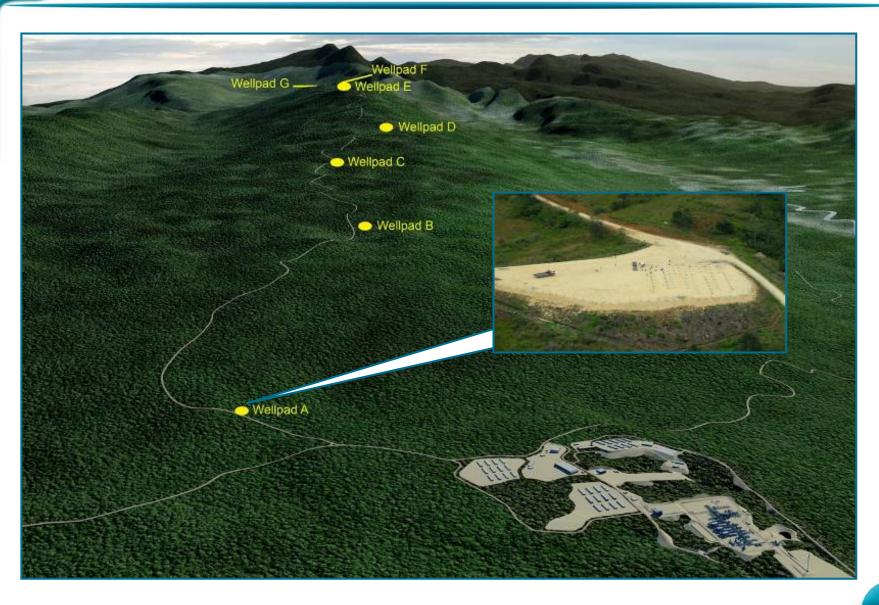
### Pipeline Elevation: Omati to Hides







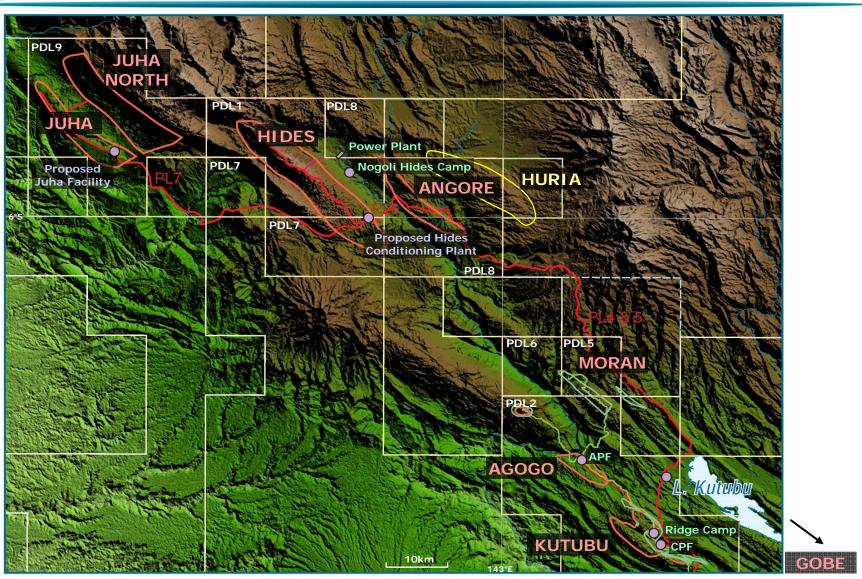
# **Hides Plant and Wellpads**







#### **PNG LNG Fields**







# **Northern Logistics Route**



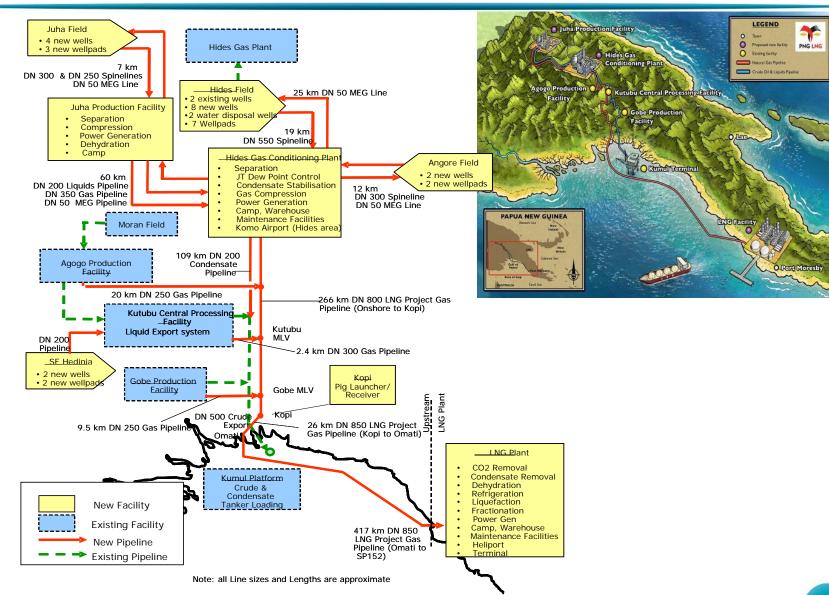


#### **Timetable**

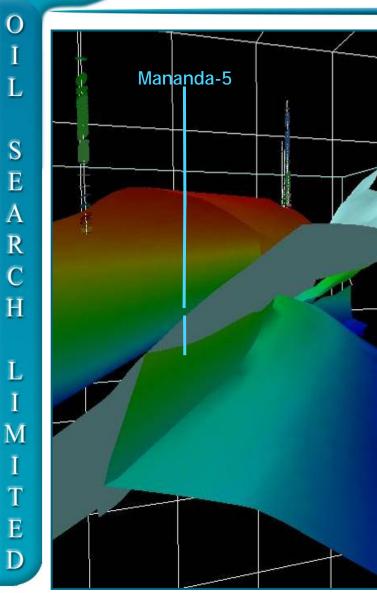
0 Complete AG Continued early works Detailed design Commence L Order long leads and onshore pipe lay (Kutubu to Omati) place purchase orders Open supply routes Complete offshore First Gas from Contractor mobilisation pipe lay S Train 1, Start Hides plant Commence then Train 2 installation **AG** construction E A R 2010 2011 2012 2013 2014 H L **Financial**  Pipe lay (Kutubu **Ongoing procurement** and mobilisation to Hides) M Close Airfield construction Ongoing drilling Drilling mobilisation Complete Hides plant Commission LNG plant Start offshore pipeline construction with Kutubu gas Onshore line clearing Ē Start LNG equipment installation **PNG LNG** 



# PNG LNG Project Overview Schematic







# Growth Opportunities

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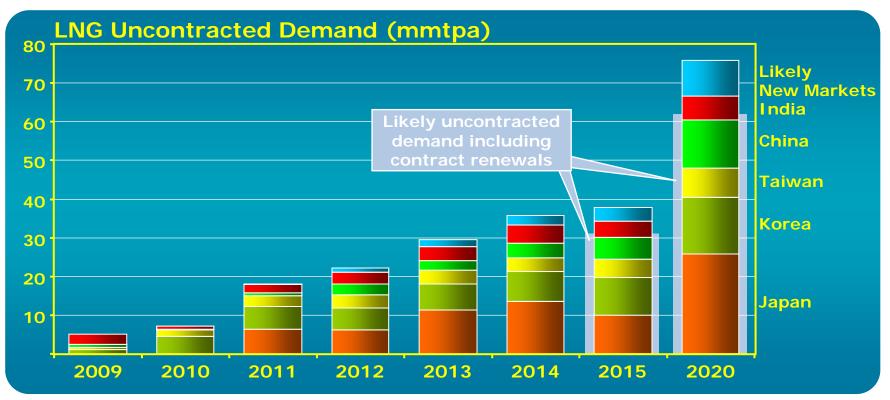
#### **PNG Gas Growth**

- Key strategic priority for Oil Search is to grow gas business in PNG, with LNG the optimum commercialisation route
- PNG LNG will provide infrastructure to facilitate expansion and provide excellent cost structure:
  - Use of infrastructure and facilities
  - Trained local work force
- Government is very supportive of, and expects, future gas growth
- Competitive and positive position in the LNG market





#### Asian LNG Markets Outlook



Source: FACTS GLOBAL ENERGY, Nov 2010

- —Multiple potential suppliers of LNG post 2015
- Economically robust developments backed by well regarded operators and brownfields expansions will have advantage when seeking offtake agreements



#### Sources and Timing of Gas Resource Maturation

- Resources required to underpin LNG expansion being considered at present:
  - Studies underway
- Potential sources of gas
  - PNG LNG dedicated fields
  - Existing discoveries outside PNG LNG dedicated fields
  - Exploration licences
- Building integrated programme to test best onshore gas prospectivity through 2011 and 1Q12
- Building strong offshore licence position and testing with seismic in 2010/1Q11, followed by drilling in 4Q11 and 1H12

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#### PNG LNG Dedicated Fields

- —Potential upside in PNG LNG fields
- Near term focus on:
  - Associated Gas Fields (Kutubu/Moran/Gobe/Agogo)
    - Recent wells and additional production history indicate increased gas resource. Recertification required
  - Hides
    - Yet to test depth of gas water contact or northern segment
    - Two development wells scheduled to test both in 2012
    - Currently considering accelerating drilling

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# **Onshore Exploration and Appraisal**

#### — Huria (PRL 11/PDL 8)

- ExxonMobil (Op) & Oil Search
- Seismic completed over Huria prospect and Angore, currently being interpreted
- Further dip line being acquired
- Potential drilling in 4Q11

#### Barikewa (PRL 9)

- Oil Search, Santos & Cue
- Seismic acquired & being interpreted
- Commitment appraisal well targets, location & timing being reviewed
- Target timing is 2012

#### P'nyang (PRL 3)

- ExxonMobil (Op), Oil Search & Noex
- Potential step out development from Juha
- Small focused seismic programme in 1Q11
- Appraisal drilling in 2012



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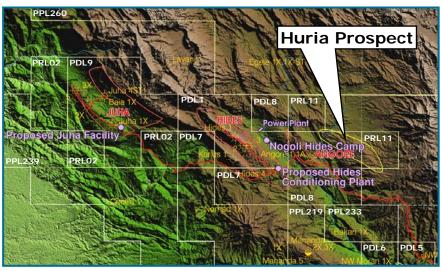
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# **Huria Prospect**



| SW     | Hides 4 | Angore 1A  | NE   |  |
|--------|---------|------------|--|--|
|        | A       | A          | Huria  |  |
| metres | A Late  |            | <del>+++</del>   |  |
| 1000   |         | Strickland |  |  |
| MSL    |         | Darai      |  |  |
| -1000  |         |            |  |  |
| -2000  |         | ler        |  |  |
| -3000  |         |            | Toromburu  |  |
| -4000  | T       |            | The state of the s |  |
| -5000  |         |            |  |  |
|        |         |            |  |  |
|        |         |            |  |  |
|        |         |            |  |  |
| 0 4km  |         |            |  |  |

| PRL 11     | WI %  |  |
|------------|-------|--|
| Oil Search | 52.50 |  |
| Exxon      | 47.50 |  |

- Near field opportunity located adjacent to Angore and Hides gas fields
- Large, broad surface anticline
- Multi tcf potential
- Initial seismic completed, additional dip line currently being acquired
- Target drilling 4Q11



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# **Gulf Area LNG Strategy**

- Oil Search has high graded Foldbelt and selected Gulf of Papua licences
- Gulf Area (offshore and near shore) has relatively untested prospectivity and hence high risk
- Oil Search's strategy is to secure broad licence position, de-risk with seismic and then potentially:
  - Farm out to a credible LNG player
  - Drill exploration wells
- Steps completed so far:
  - Increased equity in Pandora (PRL 01) to 24%
  - Increased equity in PPL 244 through swap with Talisman for PPL 239
  - Completed initial phase of largest 3D seismic survey in PNG history
- To build on strategy, Oil Search has recently completed farm in arrangements to four additional licences, subject to Ministerial approval



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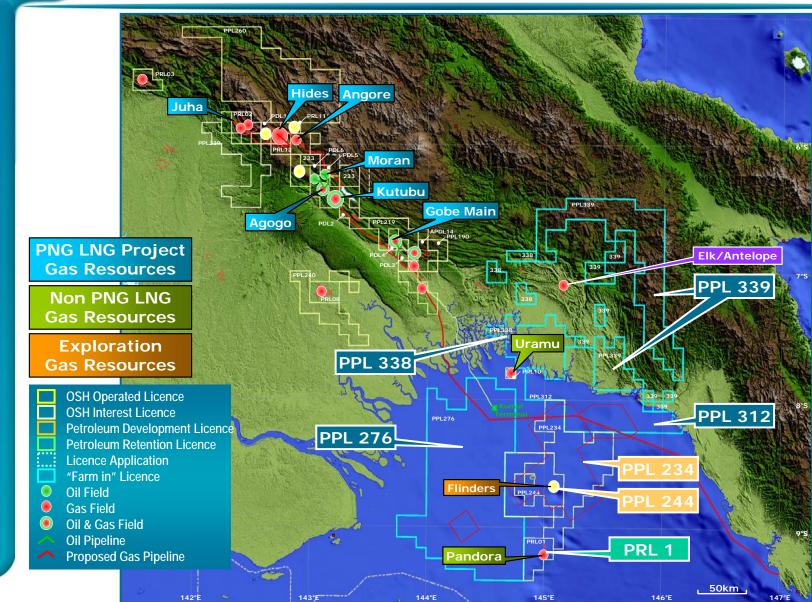
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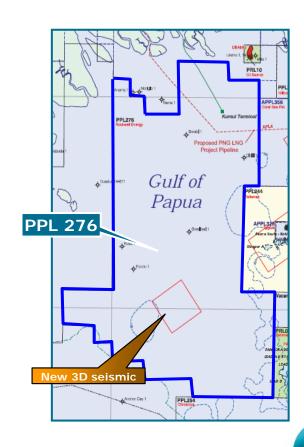
#### **Gulf Area Licences**





#### PPL 276 Farm-in

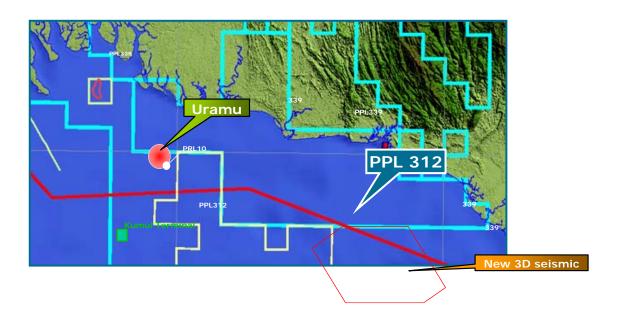
- Oil Search earns initial 30% stake from Rockwell Energy for funding 3D seismic survey in licence
- Seismic to be acquired in 1Q11
- If seismic is promising, Oil Search will earn additional 50% equity, fund a well, go on title and become Operator





#### PPL 312 Farm In

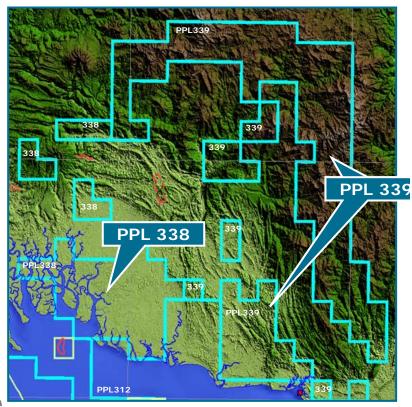
- Oil Search earns initial 30% stake from Hillsborough for funding 3D seismic survey in licence
  - Seismic to be acquired in 1Q11
  - On title from beginning, subject to Minister's approval
- If seismic is promising, Oil Search will earn additional 45% equity, fund a well and become Operator





#### PPL 338 & 339 Farm In

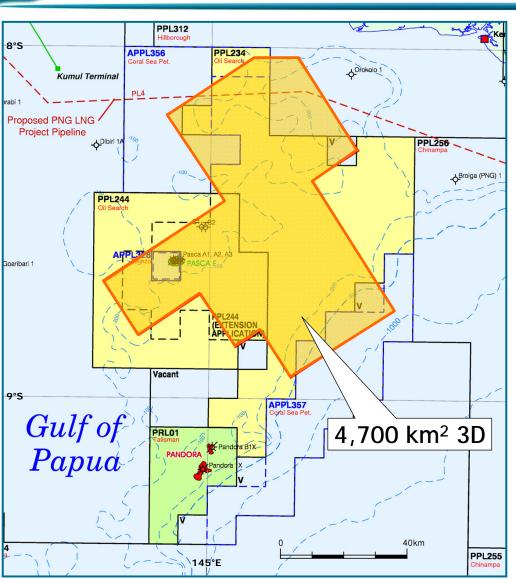
- Oil Search earns initial 30% stake from Dabajodi International Exploration for funding 2D seismic survey
  - Seismic to be acquired in 1011
- —If seismic is promising, Oil Search earns additional 40% equity, funds a well, goes on title and becomes Operator







# Gulf Area LNG Strategy



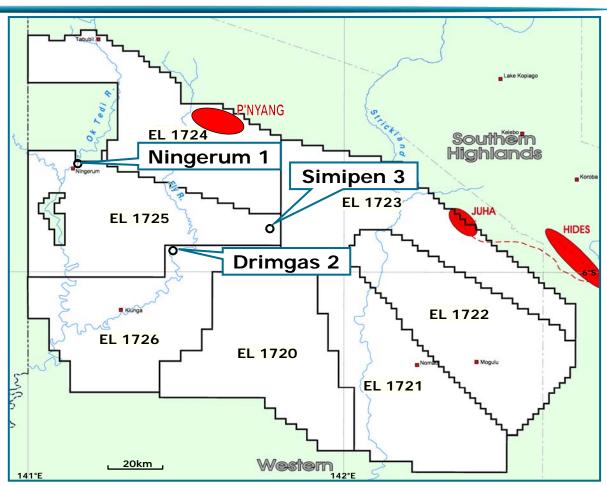
- Proven gas bearing area (Pandora, Uramu & Pasca)
- 4,700km<sup>2</sup> 3D seismic acquisition to identify and de-risk prospects. First phase complete, second phase acquisition in 4Q10
- Targeting multi well drilling programme in 2011/12
- Partner alignment (T4) prior to drilling campaign
- Target equity 30-35%, shared risks and upside
- Pandora (PRL 1)
  - Talisman, Oil Search, ExxonMobil, ENI, Beach
  - Multiple development options being considered





# **CSG Mineral Exploration Licences**

- OSH holds seven
   MELs, each
   approximately 2,400
   to 2,550 sq km. Total
   area 17,500 sq km
- CSG effort run as small low cost team
- First of three firm wells to refine coal location, rank and thickness recently commenced drilling
- Low cost wells, high risk, potentially large prize
- Preliminary results by end 2010

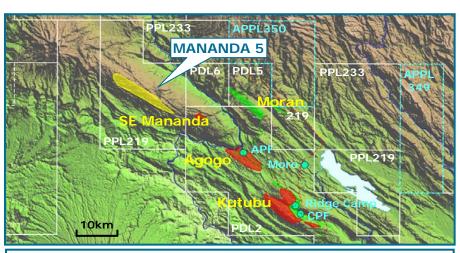


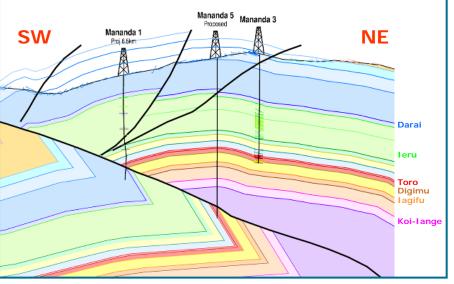
- Further wells may be drilled if results encouraging
- Coal intervals will be cored and tested for gas yield/type etc





## **PNG Oil Exploration**





#### Mananda 5

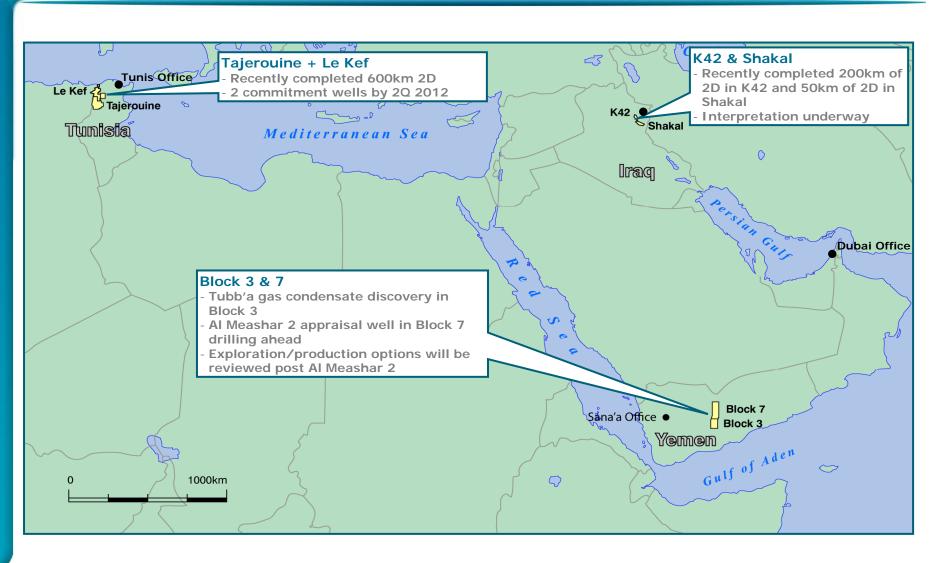
| PPL 219             | WI %  |  |
|---------------------|-------|--|
| Oil Search          | 71.25 |  |
| JX Nippon Oil & Gas | 28.75 |  |

- Near field exploration opportunity along trend with SE Mananda & Agogo oil fields
- Toro sandstone primary objective recovered oil, gas & water when tested at Mananda 3x
- Koi-lange sandstone secondary objective
- Reserves: 30 mmbbl
- COS: 45% Opportunity to deepen well and further constrain Mananda Forelimb lead - analogues to Agogo Forelimb
- Well drilling ahead





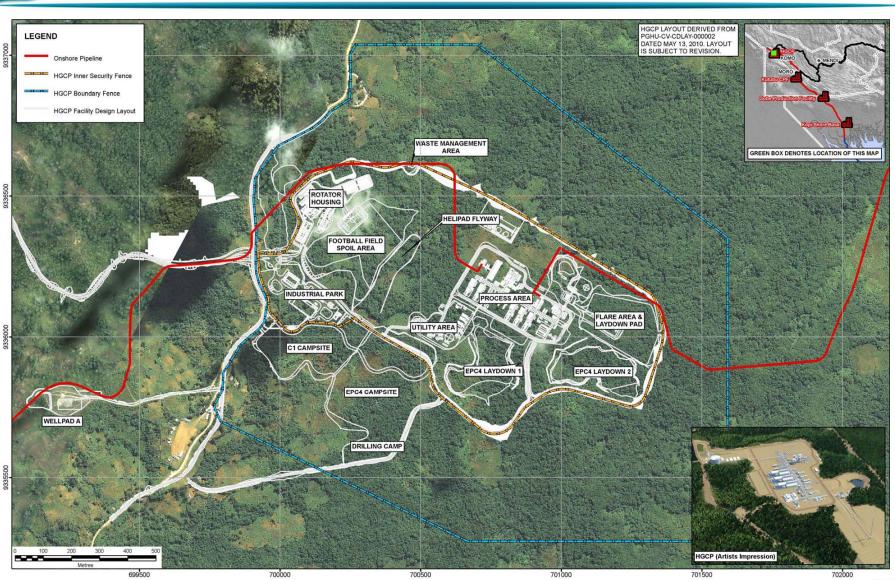
# **MENA Exploration**





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# Visit to Hides Gas Conditioning Plant (HGCP)



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# DAY 3

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# Visit to CPF and Associated Gas & Related Projects (AGRP)

- Oil Search, as Oilfield Operator, is responsible for development and operations of facilities required to deliver oilfield gas into PNG LNG Project and receive Project Condensate
- Key objectives of the AGRP are to deliver safely and within budget/schedule:
  - Commissioning gas to PNG LNG Project
  - Receipt, storage and export condensate from LNG Project HGCP with high reliability
  - Delivery of associated gas from oil production systems at CPF and GPF into LNG Project gas pipeline to LNG Plant



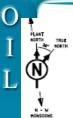


## **CPF Scope Of Work**

- Associated Gas Delivery
  - Enhanced dehydration by replacing existing gas driers to improve gas quality and reduce emissions
  - Enhanced gas cooling for spec commissioning gas to LNG Plant
  - AG Gas Management System by automating various wells for remote operation and upgrading plant inlet gas management system
  - New and upgraded metering to manage gas reserves
- Condensate Storage
  - Upgrading of pipework to allow inline mixing, loss prevention (particularly fire management) and control systems
- Commissioning Gas
  - Installation of skids to deliver early commissioning gas to LNG Plant
- Utilities
  - Improvements to ESD system and new control room
  - Tie ins for new equipment into existing and improved utilities

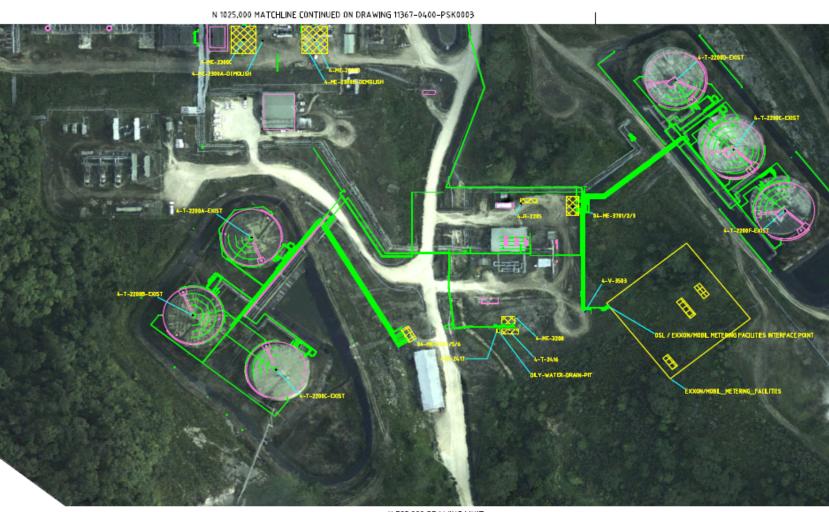


### Facilities Basis - CPF



E A R C





N 725.000 DRAWING LIMIT

### LEGEND MEW EQUIPMENT NEW PRIN6 EXISTING COUPMENT ASSOCIATED WITH PROJECT

#### MOTES.

1. MAIN PLANT DATUM 1000.000N 1000.000E IS EQUAL TO REAL WORLD CO-ORDINATES OF 9285663.000N 745591.000E.

2. MAIN PLANT DATUM EL 100.000 IS EQUAL TO 913M ABOVE MSL.

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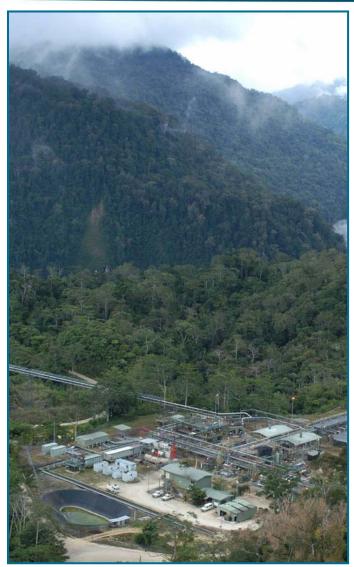


## **Construction Progress**

- New Ridge accommodation units handed over and partially occupied
- EPCM Contractor, Aker Solutions, on site and undertaking premobilisation activities
- Majority of key Construction Management personnel in place
- Early works programme has commenced (Control Room civil works)







# Production Summary



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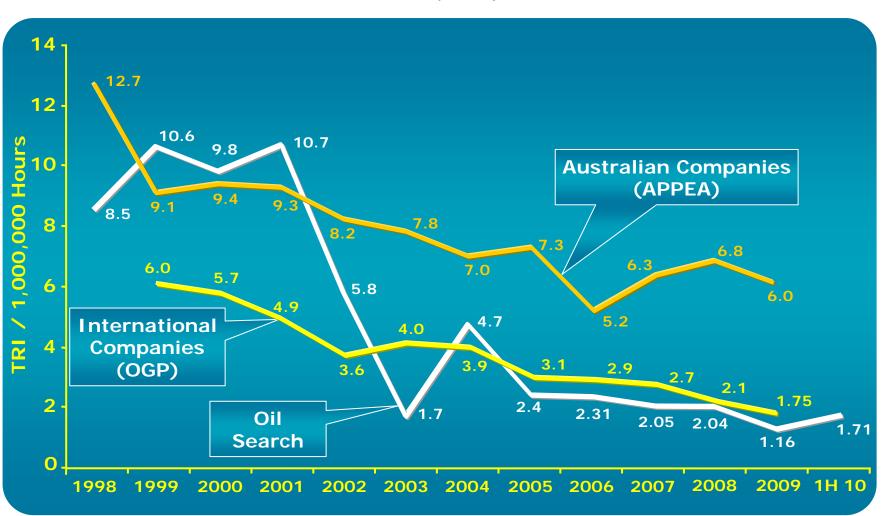
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# **World Class Safety Performance**

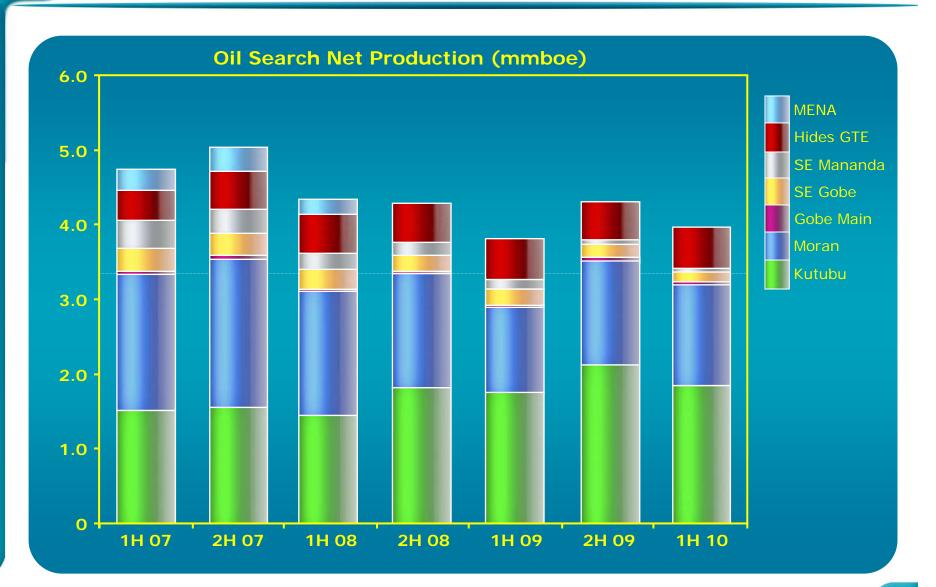
Total Recordable Incidents (TRIs) of 1.71 in 1H 2010





# **Production Summary**





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#### 2010 Performance to date

- Strong production performance to September
   2010 only 2% below 2009 levels
  - -5.8 mmboe (5.9 mmboe in Jan Sept 09)
  - Kutubu and Agogo
    - Production enhanced by ~ 1,500 bopd from ADT2 ST3 (Agogo Deep) well
    - Sustained contribution from new development wells drilled in 2008/09, particularly at Usano
  - Moran and Gobe Main base production exceeding forecasts



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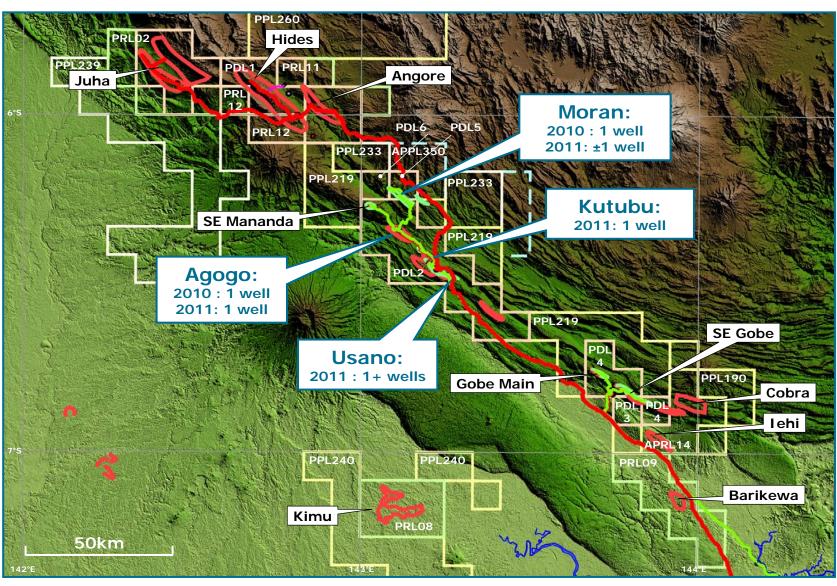
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# 2010/11 Development & Near-Field Appraisal Drilling Activity



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### Production Outlook 2010 - 2011

- 2010 production likely to be slightly above previous 7.2 - 7.4 mmboe guidance range
- Recent and planned drilling and work-over activity expected to reduce decline curve in 2011 - 2013, offset by planned shut-in of facilities in 2011 and 2012 for Associated Gas work



## **Operational Outlook**

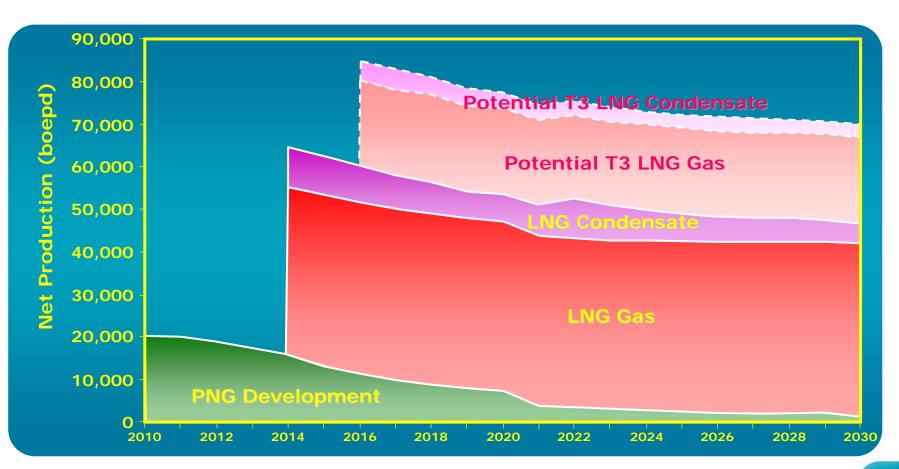
- Following PNG LNG sanction, particular focus being placed on oil export system which will also be used for PNG LNG Project condensate storage and export
- Strong portfolio of near field production opportunities identified, expect continued production decline attenuation to first LNG production
- Gas conservation has been successful, with limited oil production impact
- Ongoing focus on costs and capital efficiency





# **Long Term Production Outlook**

- PNG LNG transforms production profile, adding ~18 mmboe pa to OSH at plateau in 2015 onwards. 30 year Project life
- T3 could add an additional ~9 mmboe pa, with T4 of similar magnitude







# Strategic Review and Financial Summary

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# **Strategic Review**

- Major strategic review nearing completion
- Undertaken by dedicated review team plus external experts
- Aim is to optimise growth path and prepare for substantial production and revenue growth
- Review has resulted in a range of initiatives designed to deliver value and maximise shareholder returns through to, and beyond, first LNG production



# **Strategic Review**

- Seven key value drivers :
  - Optimise PNG operating performance to sustain production and cash flows to first LNG
  - Deliver PNG LNG T1&2 within time and cost estimates
  - Deliver Gas New Business (T3 & T4) with underwriting gas resource
  - Monitor and pursue where appropriate other growth and business development to ensure material growth opportunities post LNG
  - Ensure sustainability remains a core element of OSH's business
  - Optimise financial and capital structure, pre and post LNG cash flows, and prioritise capital allocation to maximise shareholder value
  - Align organisation to ensure it has capabilities to deliver, including management succession planning

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# LNG Funding and Liquidity Update

- OSH total share of PNG LNG capex, including fees & capitalised interest, is ~US\$5bn of which ~US\$1.2bn has been spent to date.
- Capex being funded 70% debt and 30% equity. At end September 2010, OSH had drawn down US\$649m debt from US\$14bn (gross) project finance facility
- OSH equity share of remaining expenditure is ~US\$1.2bn
- At end September, US\$1.31 billion of cash in the bank (excluding OSH share of JV balances)
- Corporate revolving facility has current limit of US\$319 million.
   Remains fully undrawn
- Together with expected operating cash flows (subject to oil price, work programmes and final production outcomes), liquidity is sufficient to fund remaining equity component of PNG LNG, plus support other growth initiatives





# Revenue Update at 30 September 2010

|                              | 9 mths      | 9 mths      |
|------------------------------|-------------|-------------|
|                              | to Sept 10  | to Sept 09  |
| Oil & Gas production (mmboe) | 5,794       | 5,899       |
| Oil Sales volume<br>(mmbbl)  | 4,819       | 4,540       |
| Total sales volume (mmboe)   | 5,523       | 5,294       |
| Oil Price (US\$/bbl)         | 77.22       | 58.89       |
| Oil & Gas Revenue<br>(US\$m) | 400.1       | 287.1       |
| Other Revenue                | <u>18.7</u> | <u>23.5</u> |
| Total Revenue                | 418.8       | 310.6       |

- Pleasing production performance, only 2% lower than in first three quarters of 2009.
- —2010 realised oil price to date 31% ahead of 2009

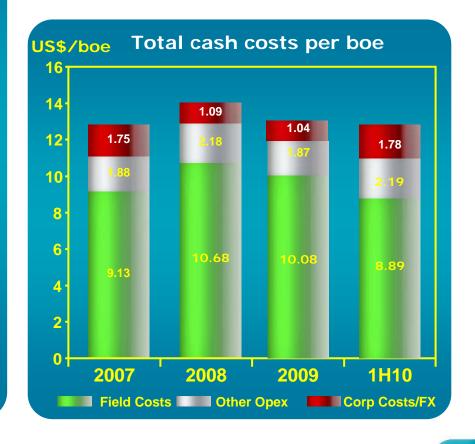




# **Active Cost Management**

|                | 41140  | 41100  |
|----------------|--------|--------|
|                | 1H10   | 1H09   |
|                | US\$'m | US\$'m |
| Field Costs    |        |        |
| - Oil: PNG     | 29.6   | 32.1   |
| - Hides        | 3.4    | 2.7    |
|                | 33.1   | 34.8   |
| Other Prod'n   |        |        |
| Opex           |        |        |
| - Oil          | 7.9    | 5.1    |
| - Hides        | 0.3    | 0.2    |
|                | 8.2    | 5.3    |
| Net Corp Costs | 7.8    | 4.3    |
| FX Losses      | (1.2)  | (2.7)  |
| Total          | 47.8   | 41.7   |
|                |        |        |

- 1H10 costs/boe flat mainly due to limited work programmes
- 2H10 costs benefitting from charge out of facilities to LNG contractors.



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# 2010 Earnings Outlook

- Production likely to be slightly above previous 7.2 7.4 mmboe guidance range
- Charge out of services to LNG contractors benefitting opex, partly offset by strong A\$ impact on corporate and operating costs. Opex likely to be slightly below previous USD\$16 - 18/boe guidance range
- DD&A in line with previous US\$6 8/boe guidance
- US\$109m exploration costs expensed as at end September
- Crude inventory at year end expected to be slightly higher than end December 2009 level of 0.22mmbbl





# **Capex Outlook Update**

| US\$'m<br>Investing:          | 1Q-3Q<br>(A) | 4Q<br>(F) | FY10<br>(F) |
|-------------------------------|--------------|-----------|-------------|
| Exploration                   | 127          | 63        | 190         |
| PNG LNG                       | 878          | 122+      | 1,000+      |
| Development/Production        | 30           | 25        | 55          |
| Corporate & other             | 4            | 1         | 5           |
| Financing: Dividends *        | 0            | 0         | 0           |
| * Dividend fully underwritten |              |           |             |



## Summary

- PNG LNG T1/2 construction progressing steadily, timing and budget estimates unchanged. Project is in good hands
- With PNG LNG underway, new OSH strategic objective is LNG expansion:
  - De-risking/appraisal of existing gas discoveries to underpin T3
  - Gas exploration/reserves growth for further expansion
- Core oil production remains solid. Focus on life extension, near field value adds and gas conservation
- Measured oil exploration in PNG and MENA
- Activities underwritten by strong balance sheet and ample liquidity to meet LNG obligations, T3/T4



### OIL SEARCH LIMITED









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