### Bayu-Undan

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Depth</td>
<td>80-100 m</td>
</tr>
<tr>
<td>Discovered</td>
<td>Bayu-1 drilled in 1995</td>
</tr>
<tr>
<td>Appraisal</td>
<td>10 appraisal wells 1995-1998; ~1km core; 12 DSTs</td>
</tr>
<tr>
<td>Fluid type</td>
<td>Retrograde Gas Condensate (High Liquids Content)</td>
</tr>
<tr>
<td>Drive Mechanism</td>
<td>Strong aquifer drive (plug backs to reduce water production)</td>
</tr>
<tr>
<td>First gas</td>
<td>Feb 2004 gas recycling only; Feb 2006 gas exports to DLNG</td>
</tr>
<tr>
<td>Development</td>
<td>Extraction and sale of LPGs, condensate and LNG</td>
</tr>
<tr>
<td></td>
<td>- Phase 1: 8 producers; 4 gas injectors; 1 shallow water disposal well</td>
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<tr>
<td></td>
<td>- Phase 2: 4 producers and 1 shallow water disposal well</td>
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<tr>
<td></td>
<td>- Phase 3a: 2 subsea producers (1 suspended)</td>
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<tr>
<td></td>
<td>- Phase 3b: 3 producers (1 subsea; 2 platform)</td>
</tr>
</tbody>
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![Map of Bayu-Undan area]
Bayu Undan, Santos & Timor Leste Success Story

**To Date**
- Production and revenue exceeded initial development plan
- Maximise economic recovery and maintain sales gas plateau

**Future**
- Opportunity for another Infill Well campaign
- Decommissioning Project

**Bayu-Undan Timor-Leste Revenue**

<table>
<thead>
<tr>
<th>Initial development plan</th>
<th>Actual to YE 2019</th>
</tr>
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<tbody>
<tr>
<td>$3.1B</td>
<td>$21.8B</td>
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</tbody>
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Graph: Bayu Undan Total Production

- Initial Development Plan
- Actuals
- Forecast

Timeline: 2001 to 2023
Bayu Undan TL Local Content

- Over US$164.5 MM local content expenditure as of Dec 2019
  - Goods and Services $69.8 MM
  - Training & Employment $82.9 MM
  - Community Invest & CSR $12 MM
- 343 Timor-Leste nationals employed across activities at Bayu-Undan
- Timor-Leste employment represents 37% of total offshore workforce
- Dili Engineering Office: ~50 personnel providing technical and administrative services.

Dili Office: Cost effective organization supporting offshore, LNG, and international operations
Bayu-Undan Reservoir

- Original 200m+ vertical column height, Common Free-Water-Level
- Jurassic fluvio-deltaic reservoir with low-clay Quartzose sandstones
  - High perm, high net-to-gross with moderate porosity
- Strong very large regional aquifer – bottom & edge drive
- Highly faulted / fractured. No fault compartmentalisation.
  - Excellent lateral and vertical pressure communication
  - Drives water & lean gas breakthrough

World-class hydrocarbon and reservoir quality
Reservoir Mechanisms and Recovery Implications

- Upper Elang Sands
  - Water from Edges of field
  - Remaining opportunities

- Plover & Lower Elang
  - Water from Bottom of field

- Strong aquifer-drive reservoir
  - Water expands naturally to replace net gas removed
  - Maintains low pressure depletion

- Gas recovery:
  - Wells per area, sand connectivity and pressure support
  - Water partially traps gas & impacts well productivity on breakthrough

Future gas within mostly shallower zones and distal edges of the field
Long Term Production Trends

Santos

- Initial Full gas recycle
  - World’s first offshore full liquids fractionation project
- Subsequent partial gas recycle ➔ export to DLNG
- Water breakthrough impacts productivity
  - Gas deliverability declining with increasing water production
  - Condensate and LPGs decline due to lean gas breakthrough and declining gas production
  - Majority of produced gas now being sold
- Further drilling accessing incremental resources and maintaining gas capacity, extending field life

Strong production and operations: world-first development attracting continuous positive investment
Bayu Undan - Phase IIIC Infill Opportunity

+ 2019 production data drove review of additional infill opportunities
+ 15 infill well locations examined between 2017 and 2020
+ Three opportunities high graded

Top Reservoir Depth Map

Working on opportunities to maximise & extend field production as long as possible
Summary

**Santos**
- Experience in developing & operating onshore and offshore facilities, FPSO & platform structures, subsea & pipelines
- Cost effective and innovative decommissioning
- Strong commitment to local capability build and development using local suppliers

**Bayu Undan Local Content**
- 343 Timor Leste nationals employed across Bayu Undan activities
- Timor Leste represents 37% of total offshore workforce
- Timorese career progression and development
- Supports Timor Leste Community Investment

**Bayu Undan**
- Production and revenue exceeded initial development plan

**Phase 3C Infill Wells**
- Opportunity to extend field life
- Maximise economic recovery