Brent Charlie Ultra Late Life
A Journey in Optimising for Platform Decommissioning

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Resources: Our use of the term "resources" in this presentation includes quantities of oil and gas not yet classified as SEC proved oil and gas reserves. Resources are consistent with the Society of Petroleum Engineers 2P and 2C definitions.

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Agenda

- Brent Charlie: 40 Years Young
- Entering the Oil Industry
- The Decommissioning Mindset
- What is Plug and Lubrication (P&L)?
- Opportunities:
  - Production (I thought you said decommissioning?)
  - Operating Cost Reduction
  - Development
- Summary
Brent Charlie: 40 Years Young

Brent Field:
- Discovered in 1971
- Producing for 40 years
- 50/50 JV with ExxonMobil
- Charlie last remaining producer
  - 16 active wells

Current Status:
- Alpha: P&L complete, P&A ongoing
- Bravo: P&A complete
- Charlie: Producing, P&L/P&A ongoing
- Delta: Topside lifted, legs capped
Entering the Oil Industry

- “Were there opportunities for new graduates anymore?”
- “How could a new graduate develop in such a climate?”
- “What was the general mood like surrounding the industry?”

My Career

- Jun 2014: $114.82
- 14th Sep 2015: Joined Shell
- Jan 2015: $46.48
- Jan 2015: $27.30
- Today: ~$50

Today ~ $50

BRENT CRUDE 17

My Career


$114.82

$46.48

$27.30

~$50
The Decommissioning Mindset

Move from…

“Ensuring a well is fit for production”

To…

“Ensuring a well is fit for decommissioning”

The platform priority was safely abandoning wells – starting with Plug and Lubrication (P&L).
What is Plug and Lubricate (P&L)?

1. Deep set wireline bridge plug set to isolate well from reservoir fluids.

2. Tubing punched / perforated above production packer.

3. Well lubricated to ISW and all HCs removed.

Why P&L a well upfront?
- Remove integrity risks for long term shut-in wells
- De-risks wells for Plug and Abandonment (P&A)
- Saves ~7 days rig time
- **Opportunity to utilise wireline for other activities!**
The Opportunities
Increasing Production

- Well Deliquification
- Scale Treatment
- Perforations
- Retrofit Gas Lift
- MSAS-G Installation
- SSSV/GLV c/o

WRFM Activities PAID for the P&L of all 13 wells in 2017*, as well as delivering net production to the business.

* 14th June 2017
The Opportunities
Reducing Operating Cost

- Maintenance Scope Reduction
- WIT Optimisation
- SIT Optimisation
The Opportunities
Professional and Technical Development

- Shell Graduate Development Programme
- 8 Key Competencies covered by 99 proof points
  - Only 3 are in Abandonment
  - 96 are in Production
- Now managed to develop 82/99
- Offshore team
  - Learn about topsides, intervention equipment
  - Pass on subsurface understanding
Summary

- Ultra Late Life does not mean no opportunities!
  - Simultaneous abandonment / barrel casing
  - Production gains / operational cost reduction
  - Professional and technical development

- Move from “optimising for production” to “optimising for decommissioning”
Q&A

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