



IADC DEC Committee Tech Forum

MPD – a Rig “Prepared for MPD”

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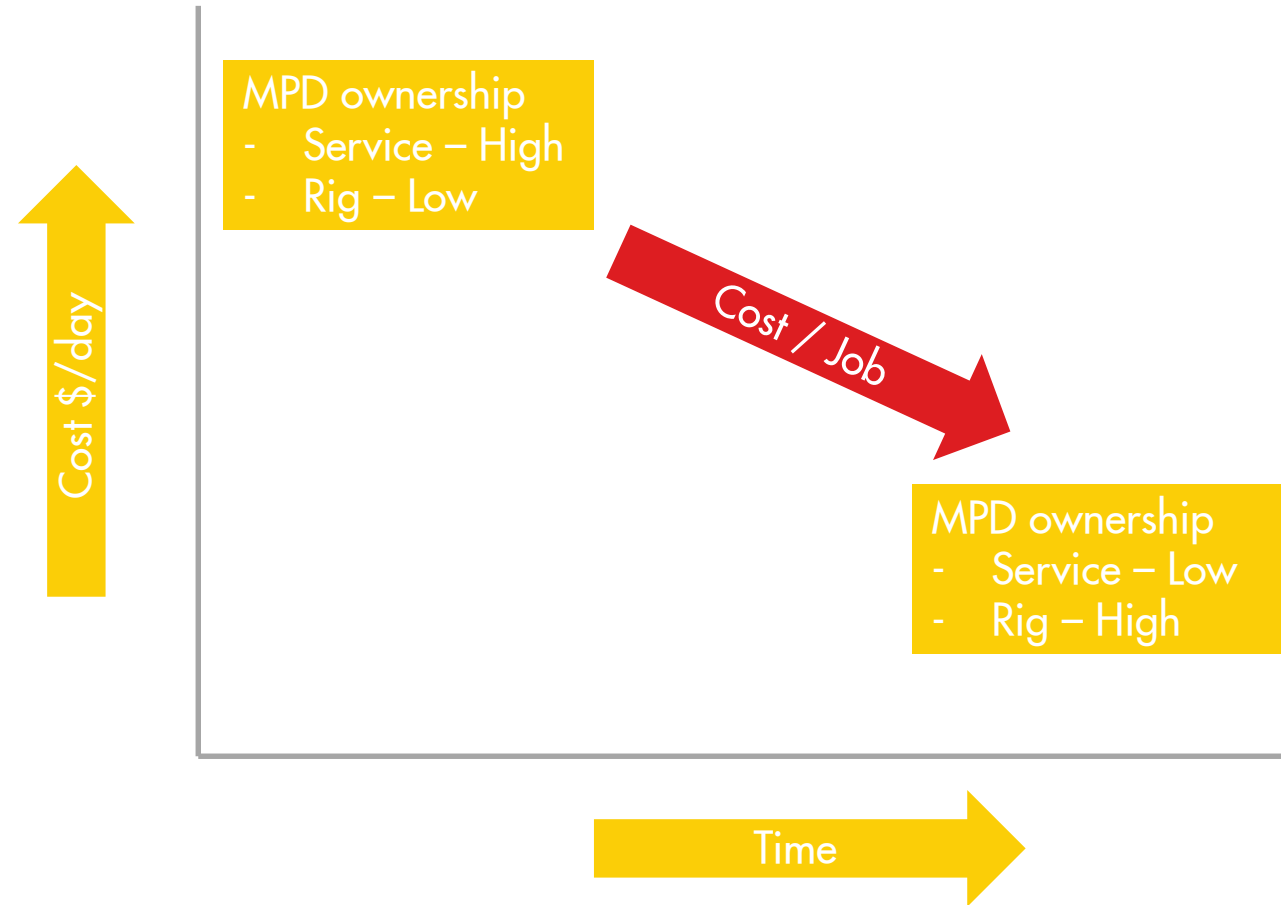
Well Engineering Team Lead North America

Shell GOM MPD Plans

- Installation of MPD system – Applied Back Pressure system (Below Tension Ring) by Weatherford
- MPD campaign – Rig Transocean DW Thalassa
- Start date Q4 2017
- Objectives:
 - Navigate narrow margins
 - Improve bore hole stability
 - Managing losses and ballooning
 - Overall – reduce NPT
 - Increase efficiency of drilling operations

Rig Prepared for MPD – Operator perspective

- Easy to turn MPD “on” and “off”
- Rate structure, defensible to the in-house customers (Wells and Asset Teams)
- MPD equipment – cost of ownership
 - Service Providers (short term contract)
 - Rig Owners (included in rig day rate)
- Challenges
 - MPD technical specification
 - Understanding of well portfolio
 - C&P cycles – long term contracts
 - Innovation and integration



MPD technology development and integration

- MPD technology developments – Staircases
 - Variations of the Surface Applied Back Pressure systems
 - Above vs Below Tension Rig installations
 - Integration of riser components (Rig and MPD)
 - Pumped Riser, Riserless systems, Pressurized Mud Cap, etc
- MPD integration in the rig system
 - Minimum modifications (line layout)
 - MPD Procedures, certification and Training
 - Regulatory approval – GOM BSEE – New Technology Plan
 - MPD Choke systems for well control
 - MPD controls integrated in rig system

