Meeting the Challenge Head On

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AAPG Executive Business Session
April 10th 2006
Shell Exploration & Production

Shell Scenarios: Balancing Complex Trade-offs

- EFFICIENCY: market incentives
- SECURITY: coercion, regulation
- SOCIAL COHESION: aspiration to equity
- LOW TRUST GLOBALISATION: ‘carrots & sticks’
- OPEN DOORS: ‘bridges & incentives’
- FLAGS: ‘nations & causes’

GLOBALISATION: 'carrots & sticks'
OPEN DOORS: 'bridges & incentives’
Meeting the Supply Challenges . . .
. . . Through Exploration

Source: IHSE Energy
Meeting the Challenges . . .
. . . by Pushing the Boundaries

1960 – 1970
- LNG
- Bright Spots
- Steam Soak

1970 – 1980
- Subsidence
- Foam cement
- PDC bits
- Dyn. Pos. Drilling
- Type Curves

1980 – 1990
- 3D seismic
- Deep Water
- GtL – SMDS
- Downhole motor
- HPHT drilling
- Concrete Platforms
- frac. Reservoirs
- EOR
- Basin modelling
- 3D PSDM
- Expandables
- Smart Wells
- Underbalanced Drlg
- Extended Reach Drlg
- NMR logging
- SCAL
- Array resistivity logging
- Sub sea tiebacks
- TLPs

1990 – 2000
- 4D seismic
- 3D VSP
- Smart Fields
- Thru-bit-logging
- Unconventionals
- Monobores
- DW SBOP
- Coated Steel Tubes
- Swellable Elastomers
- ... and more

2000-2010
- ...
Shell Exploration & Production

Meeting the Challenges . . .
. . . With Technology Solutions

• Making the most of today’s oil and gas field
• Bringing on new, more difficult and unconventional resource
• Developing more efficient and greener fuels
• Dealing with emissions of CO2 from energy processes
Making the Most of Existing Resources

Well planning
• Geocap 3D viewer

Drilling technology
• Under balanced drilling
• New drilling technology

Well engineering
• Horizontal and multi-laterals
Smart Field Technology

Facilities to improve multi-disciplinary collaboration, to reduce cycle times, and to generate more robust development plans.
Delivering Better Fuels - World Energy Demand

Billion tonnes oil equivalent

IEA 2004 (reference case)
Carbon Management Technology
Our People – The Most Important Resource