IMPROVING PROJECT ECONOMICS USING STANDARDIZATION

Rick Fowler
VP Deepwater Projects
Overview of LLOG

- Founded in 1977
- Privately funded
- Largest US private oil producer
- 5th largest GOM operator
- 70% Exploration success rate
- 21 operated deepwater developments to date
- 43 operated subsea wells brought on production
- Who Dat FPS with 10 wells on production
- Delta House FPS with 10 wells on production
LLOG Business Plan vs Southwest Airlines

- Operational Area
- Standardization
- Cycle Time
- Costs
- Flexibility
- Fun
Why Standardize?

• Develop one set of specs
• Develop one execution plan
• Accelerate schedule
• Certainty of cost/schedule
• Capture learnings from each project
• Improve safety
• Enhance relationship with vendors
What Can Be Standardized?
(to some degree)

• Drilling design*
• Completion design*
• Subsea Equipment
• Hull
• Topsides
• Risers
• Designed for a wide range of rates/fluids (28-38 API)
• Relatively small incremental cost for bigger size
• Value of unused capacity
• Potential for expansion if capacity is too low
• ~60% Increase in PV10 by Acceleration
• Assumes no expansion
Delta House Rate Uncertainty
As of December 2012
GOM FPS’s
Time from Discovery to First Production

Who Dat
Delta House
## Delta House Results

<table>
<thead>
<tr>
<th>Metric</th>
<th>DH</th>
<th>Industry</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>TRIR</td>
<td>0.05</td>
<td>0.49</td>
<td>10</td>
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<tr>
<td>DARTIR</td>
<td>0.05</td>
<td>0.33</td>
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<tr>
<td>INC Ratio</td>
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<td>0.24</td>
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<tr>
<td>Time to IP (years)</td>
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<td>8</td>
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<tr>
<td>Cost ($B)</td>
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<tr>
<td>Breakeven ($/bbl)</td>
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<td>~$45</td>
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