## Key Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Original FID</th>
<th>Modelled Capex '02-'06</th>
<th>Modelled VIR-MID</th>
<th>Modelled Onstr.Year</th>
<th>Prod. kboe/d '02-'06 avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POST-FID</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>AOSP</td>
<td>Jan-00</td>
<td>416</td>
<td>0.45</td>
<td>2003</td>
<td>76</td>
</tr>
<tr>
<td>90 EA</td>
<td>Oct-99</td>
<td>455</td>
<td>0.67</td>
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<td>65</td>
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<tr>
<td>NAKIKA BASE</td>
<td>Jul-00</td>
<td>438</td>
<td>0.41</td>
<td>2004</td>
<td>43</td>
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<tr>
<td>BONGA</td>
<td>Dec-99</td>
<td>920</td>
<td></td>
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</tr>
<tr>
<td><strong>Pre-FID</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>49 UGHELLI</td>
<td>Dec-01</td>
<td>192</td>
<td>0.79</td>
<td>2003</td>
<td>22</td>
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<tr>
<td>ERHA</td>
<td>Dec-01</td>
<td>932</td>
<td>0.7</td>
<td>2004</td>
<td>40</td>
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<tr>
<td>HOLSTEIN PHASE 1</td>
<td>Nov-01</td>
<td>433</td>
<td>0.52</td>
<td>2005</td>
<td>20</td>
</tr>
<tr>
<td><strong>Big Tick</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIGERIA Train 4/5</td>
<td>2002-2003</td>
<td>55</td>
<td>0.59</td>
<td>2005</td>
<td>2</td>
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<tr>
<td>SAKHALIN</td>
<td>Jun-02</td>
<td>1821</td>
<td>0.54</td>
<td>2006</td>
<td>1</td>
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<tr>
<td><strong>E &amp; A Follow- Up</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANGOLA</td>
<td>Dec-02</td>
<td>768</td>
<td>0.52</td>
<td>2006</td>
<td>15</td>
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<tr>
<td>BONGA SW</td>
<td>Jan-03</td>
<td>684</td>
<td>0.37</td>
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<tr>
<td>BRAZIL</td>
<td>Aug-03</td>
<td>672</td>
<td>0.77</td>
<td>2007</td>
<td>0</td>
</tr>
<tr>
<td>KASHAGHAN</td>
<td>Dec-02</td>
<td>592</td>
<td>0.65</td>
<td>2006</td>
<td>2</td>
</tr>
<tr>
<td>RHINO</td>
<td>Apr-02</td>
<td>169</td>
<td>0.41</td>
<td>2006</td>
<td>6</td>
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<tr>
<td>SPDC</td>
<td>2001-2004</td>
<td>182</td>
<td>0.85</td>
<td>2003</td>
<td>16</td>
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<tr>
<td>USA</td>
<td>2001-2008</td>
<td>699</td>
<td>0.4-0.6</td>
<td>2003</td>
<td>43</td>
</tr>
<tr>
<td><strong>Str.-Op.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUDU</td>
<td>Dec-02</td>
<td>508</td>
<td>0.56</td>
<td>2006</td>
<td>5</td>
</tr>
</tbody>
</table>
# Sensitivities - ROACE Impact @ $14

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational/Project Performance Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Mgmt. Adjustment</td>
<td>0.3%</td>
<td>0.8%</td>
<td>1.1%</td>
<td>1.0%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Production gain of 1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exploration Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Undesired Exploration</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Reduced USA Exploration ($100 mln pa reduction)</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Portfolio Management/Big Tickets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Brazil</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.5%</td>
</tr>
<tr>
<td>No Angola</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0%</td>
</tr>
<tr>
<td>Further Dil. Of Sakhalin by 30%</td>
<td>0.1%</td>
<td>0%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Defer Pilton/Luskoje by 2 yrs</td>
<td>0.3%</td>
<td>0%</td>
<td>-0.2%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

N.B. There will be loss of production & ROACE from 200% by dropping these projects.
Deepwater Steering Council Meeting  
5 October 2001  
8-9 Houston Time/3-4 Hague Time  
Agenda

<table>
<thead>
<tr>
<th>Item</th>
<th>Lead</th>
<th>Time</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agenda</td>
<td>Lorin</td>
<td>5 min</td>
<td>Agreement</td>
</tr>
<tr>
<td>General Resourcing</td>
<td>John/Matthias</td>
<td>15 min</td>
<td>Discussion</td>
</tr>
<tr>
<td>Issues – Q&amp;A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Focus of Seahorse including items</td>
<td>Lorin</td>
<td>30 min</td>
<td>Discussion/Support</td>
</tr>
<tr>
<td>not covered in Business Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td>Lorin</td>
<td>10 min</td>
<td>Discussion/Decision</td>
</tr>
<tr>
<td>Next Meeting / Close</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mssr: Matthias Bichsel; Mdm: Lori Priess – Houston, Wck 1454  
Mdm: Fran Lohr – via telephone
## Resourcing 2002 Deepwater Activities

### SDS Resourcing Models

<table>
<thead>
<tr>
<th>Subsurface</th>
<th>Well Delivery</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001 Level</td>
<td>195</td>
<td>528</td>
</tr>
<tr>
<td>10&quot;</td>
<td>84**</td>
<td>664</td>
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</tbody>
</table>

### Resourcing 2002 DW Activities

<table>
<thead>
<tr>
<th>Proposal</th>
<th>2002 BP &quot;50/50&quot;</th>
<th>2002 BP &quot;10/90&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
<td>214</td>
</tr>
<tr>
<td></td>
<td>94</td>
<td>290</td>
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<td></td>
<td>130</td>
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<td>146</td>
<td>156</td>
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<td></td>
<td>140</td>
<td>649</td>
</tr>
<tr>
<td></td>
<td>140</td>
<td>805</td>
</tr>
</tbody>
</table>

**Shell Staff / Contract Staff**

- **Includes operations staff assigned to OUs**
- **Examples (indicative)**
  - Ronka SW
  - Angola Block 34
  - Brazil BS-4/BC-2
  - Morocco Rimella
  - Regional Studies
  - Angola/Congo UUD

**Requires regrants**

- Great White Follow-up
- OPL 219 Success
- Rhino Success
- Brunei EEZ Success

**Allows execution of DW business plan**

**Allows additional projects (within SDS Plan)**

- GoM Regional Study
Project "Seahorse" Renewal
5 October 2001 Update
(Updates in Blue)

Traditional Operator/Non-Operator Enhancements:

- BC-10 may be best monetized by assigning our equity to Petrobras while retaining an over-riding production royalty with incentives for early production.
- Unlocking oil and monetizing gas in West Africa utilizing FONG/FLNG (significant potential LNG business of 20-30 mtpa) - EP/OP have agreed to pursuing the following top projects, FLNG/FONG in Nigerie, OPL 219, FLNG in Namibia, acquiring Alba Field in Equatorial Guinea (provides entry point to significant deepwater opportunities in Blocks C & E among others). Update: West Africa Gas Strategy - At the Global LNG Forum meeting 3 October, it was agreed the major challenge is to obtain market access in the Atlantic Basin and Med Rim through existing and new Regassification Terminals in US, Mexico, Canada, Brazil and Iberia. The Forum identified high priority terminal projects for study focused on commercialization of Shell commercial and technical resources. The offshore GoM terminal alternative being pursued by EPB features prominently in the value chain approach that is required to mature upstream supply projects to FID and get access to large scale regaseng capacity in the US. This and other N American terminal capacity opportunities should be vigorously pursued in parallel with the maturation work on WA LNG supply projects, capitalizing on Shell's FLNG and FONG technologies and our LNG experience and global scope. OPL 219 - A project team is in place, FONG is being customized for application on 219 and a value proposition is being compiled. Both a FONG and FPSO solution are currently being pursued; final selection will take place during 1Q02, after the completion of the Bolla exploration well. Acquisition of Alba Field - Shell has been selected to proceed to the next phase of the project; evaluation work ongoing.
- NOV best operator approach has yielded some success (e.g., Nigeria Erha, Angola Block 18, and GoM Holstein); however, significant value is still seen to justify pursuing new approaches (i.e., GoM Nakka).
- New basin studies for entry following Morocco example - low cost, easy exit, reconnaissance approach. Update: Potential new basins have been identified internally for further screening; methodology and process to be further detailed following up on GEPI, Playsim, and peer review learnings.

Leveraging Technology:

- Internal leveraging has very significantly increased project value - on Shell operated as well as NOV projects (ex. Blk 18, Plutonia - convinced up to drill deeper >100MMBO addition, Erha, convinced Exxon to drill appraisal, proving development plans needed to be changed). There are many other examples of internal leveraging. Update: Quantification of these successes has been done which includes a comparison vs our competitors identifying Shell's competitive edge and potential leverage points for pursuing externally.
- Joint heavy oil initiative with Petrobras to the benefit of both companies, pilot on BS-4
- Evaluate tax benefits of joint technical team with Petrobras, if value add, pursue pilot in conjunction with BS-4 or BC-10 / BC-60 efforts
- Pursue using Staris Tay for drill to earn in Brazil and W. Africa
- External leveraging - Shell has not attempted to use our capabilities to access acreage through NOCs or independents. Form team of RBAs, BDC, and SDS to develop plans to approach owners and NOCs to acquire WI% of key properties using coveted property lists. Update: Establish a full time Technical Marketing Team for external marketing.

Portfolio Actions:
Mega mergers have provided other majors with advantaged portfolios as compared to Shell.

- **Acquisitions / swaps are needed to improve Shell's position.**
  - **TFE / Shell swap Brazil / Angola assets, specifically Shell Block 18 for TFE BC-2**
    - **Update:** Hosted discussions with TFE to identify areas of synergies and generate ideas for potential opportunities. Near term ideas included leverage operational synergies in Cameroon and Gabon, including terminal logistics, to reduce costs and identify near term production opportunities. Longer term - seek to identify swaps to increase Shell’s position in Angola in exchange for US or other W. African Interests. Alternatively, swap TFE interests Brazil- BC2 for Shell’s interest in Blk 18 Angola.
  - **Swaps of certain GOM interests (Holstein and other potential satellite developments) for Angola Blk 18 or Brazil assets**
    - **Update:** Teams updating asset values; swap requires methodology to normalize risk profiles.
  - **Revisit corporate acquisitions of Marathon, Kerr McGee, AHC, AGIP-Brazil, Anadarko, and Enterprise**
    - **value in light of market discontinuities**
    - **evaluate opportunities to carve out deepwater properties only**
    - **Update:** DW acquisition candidate prioritization is aligned with EPB-M&A. Exploration is working with OUs to build asset based valuation models using the GEPI portfolio characterization and DW strategy objectives as input to the value building blocks. Expect to complete analysis of top tier candidates by 1 November.
  - **Ocean III revival of the prior initiative involving the swapping of GoM and Brazil assets**
  - **Alliance with Williams Energy, El Paso or another US power company to allow selective exit options and additional access to US gas markets**
    - **Update:** Integrated into evolving W Africa gas strategy.
  - **Provide structured financing options to enhance new development risk/return profile in Brazil**
<table>
<thead>
<tr>
<th>Do-ability</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Low</td>
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</table>

**Seahorse Renewal - Project Matrix (WIP)**

<table>
<thead>
<tr>
<th>Internal leveraging of technology</th>
<th>New basin studies for entry*</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCV best operator</td>
<td></td>
</tr>
<tr>
<td>Joint heavy oil study w/ Petrobras on BS4</td>
<td>Unlocking oil and monetizing gas in W. Africa</td>
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<tr>
<td>External leveraging of technology*</td>
<td></td>
</tr>
<tr>
<td>BC-10 monetization</td>
<td></td>
</tr>
<tr>
<td>Stena T&amp;B drill to earn in Brazil/W Africa</td>
<td>Structured financing options to enhance dev/risk/return profile in Brazil</td>
</tr>
<tr>
<td>Alliance w/ US power company</td>
<td></td>
</tr>
<tr>
<td>Joint technical team w/ Petrobras</td>
<td>TFE/Shell swap Brazil/Angola assets</td>
</tr>
<tr>
<td>GoM swap Angola/Brazil assets</td>
<td>Ocean III revival - GoM swap Brazil assets</td>
</tr>
</tbody>
</table>

* Item Not Currently Funded
### 2001 Deepwater Business Plan

**Projects For 2002**

<table>
<thead>
<tr>
<th>Base</th>
<th>Option</th>
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<tbody>
<tr>
<td><strong>Angola</strong></td>
<td></td>
</tr>
<tr>
<td>Block 18 Development</td>
<td>Block 18 Outside Greater</td>
</tr>
<tr>
<td>- Greater Plutonio</td>
<td>Plutonio Area</td>
</tr>
<tr>
<td>- Area</td>
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<tr>
<td>Block 34</td>
<td>Block 34 - Option</td>
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<tr>
<td><strong>Brazil</strong></td>
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<tr>
<td>BC-2</td>
<td>BC-10</td>
</tr>
<tr>
<td>BMS-8</td>
<td>BMC-10</td>
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<tr>
<td>BS-4</td>
<td>FZA-1</td>
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<tr>
<td>Cousteau High</td>
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<td>SBEP Corporate</td>
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<td><strong>Egypt</strong></td>
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<td>NEMED Firm</td>
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<td><strong>Gabon</strong></td>
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<td>AM2000 UCF</td>
<td>Kenguerie HS</td>
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<td>Astrid OFB</td>
<td>Olonga OFB</td>
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<td>Panga OFB</td>
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<td><strong>Malaysia</strong></td>
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<tr>
<td>Block G : Limbayong</td>
<td>Block G : Plaagan</td>
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<td>Block G : Morongo</td>
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<tr>
<td>Rhino</td>
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<td><strong>Morocco</strong></td>
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<td>Rimaille</td>
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<tr>
<td><strong>Nigeria (SNEPCO)</strong></td>
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<tr>
<td>Bonga South-West</td>
<td>Bollia</td>
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<tr>
<td>Erha-Deep</td>
<td>Bonga West</td>
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<td>Erha-South</td>
<td>Doro Floating LNG</td>
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<td>Oberan</td>
<td>Doro South-East (Oil Rims)</td>
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<td>Ultra Deepwater Block</td>
<td>Ultra Deepwater-Block</td>
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<tr>
<td>OPL245 Acquisition</td>
<td>OPL248/OPL256 Acquisition</td>
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<tr>
<td>Unallocated Overheads</td>
<td>Ultra Deepwater Block</td>
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<td>OPL250 Acquisition</td>
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<td><strong>Norway</strong></td>
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<td>New E&amp;A Deepwater Licences</td>
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<td>New E&amp;A Open Area SH3</td>
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<td>(Deep Water)</td>
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</table>
Base
Oman Offshore
   Oman Deep Water

Philippines
   SC-38 Acreage Commitments

SEAPOS
   Stena Tay Under-Recovery

Trinidad
   Block 25(a)

UK
   620 - New E&A - Seismic future years - Cwest
   612 - New E&A - 2004 - Assaynt
   621 - New E&A - 2002 - Kunoy
   622 - New E&A - 2003 - Svinoy

USA
   Auger A15EB2 (Risked)
   Auger Shallow Gas
   Baha Risked
   Bohr 551MSV Risked
   Delmos Risked
   DW Lse Rant Risk
   DW Seismic Model Risked
   Glider Phase II
   Nakika Base
   Oregano Phase 2
   Ryddawg Risked
   Serrano Phase II
   Shawnee Risked
   Tranche 3.DW.EB2 FID 2001
   Ursa Base

Not Currently Funded:
   New basin studies for entry ($3MM)
   External leveraging of technology ($1MM)
From: VERTAL, JERRY G.S.
Sent: 20 October 2001 12:01
To: DARLEY, JOHN J.; SULLIVAN, PAUL P.R.
Cc: DAVIS, PHIL P.; DUHON, CHRIS C.; VERTAL, JERRY G.S.
Subject: FW: SPDC Production Optimisation

Importance: High

John and Paul,

Please see attached notes. SPDC and EPG have agreed a one week SPDC/EPG/EPT workshop in late January to assess potential opportunities for production enhancement from reduced community/operational deferments, optimized RTL application and accelerated/broadened technology implementation. (I understand from Phil that Heinz agrees with this approach.) This will defer firming up the production gain potential from SPDC until Q1 2002.

Please let me know if you have any issues with this or would like to discuss. If not, we will proceed with the plan outlined in Phil's and my notes below.

Thanks.

Jerry Vertal
"The Difference is Technology"
31-70-311-2801 (NL); 713-245-7506 (US)

> -----Original Message-----
> From: VERTAL, JERRY G.S.
> Sent: Saturday, October 20, 2001 11:32 AM
> To: DAVIS, PHIL P.
> Cc: DUHON, CHRIS C.; VERTAL, JERRY G.S.
> Subject: RE: SPDC Production Optimisation
>
> Phil,
>
> Thanks for the note. One comment: I believe many of the technology gains could be captured in parallel with other SPDC production enhancement activities through use of STEP resources or SPDC resources that wouldn't be directly involved in such other activities. However, we won't know for certain until we've engaged with SPDC on this.

> I'll discuss with John Darley and Paul Sullivan. Assuming that they agree with the approach you've outlined, we'll plan to be fully involved in the planning and participation for the January workshop. As you suggest we'll seek to firm up the potential production gains at that time. In the meantime, we'll work with SPDC through normal channels (i.e. seamless team) to seek ways to accelerate technology implementation and capturing of PTL gains. If they don't agree, then we'll need to discuss further.
>
> Thanks.
>
> Jerry Vertal
> "The Difference is Technology"
> 31-70-311-2801 (NL); 713-245-7506 (US)
>
> > -----Original Message-----
> > From: DAVIS, PHIL P.
> > Sent: Saturday, October 20, 2001 10:52 AM
> > To: VERTAL, JERRY G.S.
> > Cc: DARLEY, JOHN J.; DUHON, CHRIS C.

> Subject: RE: SPDC Production Optimisation
> Jerry,
> Re our telephone conversation yesterday.
> On reflection, I do not believe that the approach the we are
> taking with SPDC necessarily conflicts with the Excom
> initiative on implementing technology based production gains.
> As you know conditions in Nigeria are very different from
> other OU’s. They have severe resource constraints, are
> operating against a background of daily community
> disturbances and have a far more ambitious development
> program than other OU’s. Against this background the main
> challenge is not to identify where additional production can
> be achieved, but to prioritize efforts (SPDC and EPT) so that
> we get most additional barrels in the tank.
> At this stage it is not clear whether application of new
> technology would be better use of resources than e.g. trying
> to implement the P&L gains that have already been identified,
> or focusing efforts on the approx 400 MB/d of community and
> operational deferment. It is for this reason that we have
> proposed a more fundamental review of how SPDC and EPT’s
> efforts are managed and prioritized. SPDC have accepted this
> challenge, and have committed to incorporate the findings of
> the planned workshop in their 2002 program. They appreciate
> the importance of the issue and reading between the lines, I
> believe they want some time to consider this issue themselves
> - in my mind this is probably time very well spent - in the
> end of the day they have to manage the situation and having
> reviewed their situation internally they will be in a much
> better position to engage with us. Their buy-in to the
> process is also essential.
> EPT have identified a number of very interesting potential
> technology based ways of increasing production potential. I
> suggest we table these as proposed 2002 activities, to be
> considered alongside other SPDC and RTL initiatives in SPDC’s
> current planning process, with the objective of reaching a
> firm prioritized program during the workshop in January. I
> am sure that there would be a lot of useful work that could
> be done between now and January to firm-up the resource
> requirements and benefits from the proposed technology so
> that we will be in a better position to rank it alongside
> other opportunities in the workshop. If you agree with this
> approach, I suggest we incorporate this explicitly into the
> draft TOR for the workshop and so that SPDC can prepare
> themselves accordingly.
> With this approach the target for technology based production
> gains for SPDC would have to remain subject to confirmation
> in January. However, I genuinely believe that this is
> justified given the conditions in Nigeria, particularly the
> need to prioritize activities.
> Regards
> Phil

-----Original Message-----
From: DAVIS, PHIL P.
Sent: 19 October 2001 16:31
To: VERTAL, JERRY G.S.
Cc: DUNON, CHRIS C.
Subject: RE: SPDC Production Optimisation

Jerry,


> > I should be the primary contact as I will be liaising with
> > SPDC on the planned workshop in January.
> > We asked for this workshop at an earlier stage, but SPDC gave
> > strong business reasons against this. They have a number of
> > ongoing initiatives which they are very reluctant to disrupt
> > at this stage (e.g. Ron van den Berg has instigated a
> > programme to get production up to the psychologically
> > important level of 1 mln b/d). Production so far in October
> > is averaging 945 Mb/d, well up on the yearly target of 780
> > Mb/d. SPDC are also preparing their detailed plans for 2002 -
> > rather than disrupt what is a complex process, they would
> > like the workshop to review their 2002 plans in January,
> > before they are finalized. As you know there are also many
> > other issues to contend with. You will have seen from Samuel
> > Inyang's e-mail, that SPDC are fully committed to the
> > workshop in January and have appointed John Hofland as
> > co-ordinator.
> > I would be grateful for your advice on who should (can)
> > attend the workshop from EPT. We obviously want staff with a
> > strong production planning / operations background, but who
> > can also take a higher level perspective about how to manage
> > and prioritize SPDC's and EPT efforts going forward.
> > Regards
> > Phil

> > -----Original Message-----
> > From: VERTAL, JERRY G.S.
> > Sent: 19 October 2001 13:26
> > To: DAVIS, PHIL P.
> > Cc: DUHON, CHRIS C.
> > Subject: RE: SPDC Production Optimisation
> > 
> > Phil,
> > Sorry for leaving you off my note. Who should be my primary
> > contact for this issue; you or Chris?
> > 
> > Thanks.
> > 
> > Jerry Vertal
> > "The Difference is Technology"
> > 31-70-311-2801 (NL); 713-245-7506 (US)

> > -----Original Message-----
> > From: DAVIS, PHIL P.
> > Sent: Thursday, October 18, 2001 5:01 PM
> > To: VERTAL, JERRY G.S.
> > Cc: DUHON, CHRIS C.
> > Subject: RE: SPDC Production Optimisation
> > 
> > Jerry,
> > 
> > Chris and I have just tried to call you on this. Please call
> > back on x1402 or x7695. Grateful if you can also keep me in
> > the loop on this.
> > 
> > Phil

> > -----Original Message-----
> > From: DUHON, CHRIS C.
> > Sent: 18 October 2001 16:40
> > To: DAVIS, PHIL P.
> > Subject: FW: SPDC Production Optimisation
> > Importance: High

3

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Case 3:04-cv-00374-JAP-JJH     Document 345-12      Filed 10/10/2007     Page 17 of 24

Chris,

If I don't hear from you today, I'll try and call you Friday
(I'll be back in Rijswijk Friday). The reason for my
telephone call today is the decision taken by Excom this week
to firm up the potential production gains from the OU's by
mid November. This will require significant interaction
between STEP and the OU's over the next couple weeks and in
the case of SPDC seems contrary to the agreement with Joshua
in your meeting last week.

I would like to discuss with you the plans that you/Heinz
have for discussing this with Ron and the go forward plan
for engaging with SPDC to firm up the production gains in
time for the EPLF note mid November.

Thanks.

Jerry Vertical
"The Difference is Technology"
31-70-311-2801 (NL); 713-245-7506 (US)

-----Original Message-----
From: DUHON, CHRIS C.
Sent: Thursday, October 18, 2001 1:19 PM
To: VERTAL, JERRY G.S.
Subject: RE: SPDC Production Optimisation

Jerry,

After a hectic week, I have just found your following e-mail
in my in-box. Hope you didn't wonder why I didn't respond ...

Chris

-----Original Message-----
From: Duhon, Chris D.
Sent: 10 October 2001 14:54
To: DUHON, CHRIS C.
Subject: FW: SPDC Production Optimisation

-----

From: Vertal, Jerry GS SIEP-EPT-AW
Sent: Wednesday, October 10, 2001 2:51:56 PM
To: Duhon, Chris CD SIEP-EPG
Subject: FW: SPDC Production Optimisation
Auto forwarded by a Rule

Chris,

If you thought it beneficial, I could try to attend.
Let me know.
Thanks.

Jerry Vertal

"The Difference is Technology"

31-70-311-2801 (NL); 713-245-7506 (US)

-----Original Message-----

From: INYANG, SAMUEL E.

Sent: Wednesday, October 10, 2001 8:24 AM

To: DUHON, CHRIS C.

Cc: Antheunis, Dan D.; Darley, John J.; Wink, Maarten A.;

Imomoh, Egbert

E.U.; ROTHERMUND, H.C.; Udofia, Joshua J.R.; Vertal,

Jerry G.S.;

OGHENESJOBO, MASON M.O.

Subject: RE: SPDC Production Optimisation

Chris,

I will be available during my visit to discuss
the subject

and will liaise with Joshua and Maarten tomorrow to take
preliminary company wide views.

One of our key Area managers, Mason Ogheneshobo,
will join me

for the discussions with you. Mason will be
attending the
Ogoni Strategy Review meeting.

Samuel.

-----Original Message-----

From: Duhon, Chris C

Sent: Tuesday, October 09, 2001 17:50

To: Inyang, Samuel E; Wink, Maarten A; DSC-GPW

Cc: Antheunis, Dan D; SIEP-EPT-A; Darley, John J; SIEP-EPT;

Imomoh, Egbert

U SPDC-DMD; Rothermund, Heinz HC SEPI-EPG;

Udofia, Joshua R

SPDC-PDD;

Vertal, Jerry GS SIEP-EPT-AW

Subject: SPDC Production Optimisation

Sam, Maarten

As you know, production continues to be one of
Excom's main
priorities.

Heinz and I discussed this with Egbert in our
mid-August visit; I
followed this up with yourselves during my early
September visit.

Attached is a brief summary of the conclusions from these
visits and
follow-up investigations.

EPT has also reviewed the overall EP scope to increase
production
through refocused and enhanced RTL based
initiatives. They
presented
some initial conclusions to Excom this week. Attached is
an edited
version of their note which summarizes recommendations
relating to SPDC.
Based on the work done by both EPT and ourselves, it is clear that SPDC will continue to be one of the main potential opportunities available to EP for production improvement. We recognize that the operating environment and resource levels in Nigeria constrain what can be achieved and that efforts need to be focused in the areas where there will be most effective. We would therefore like to propose a joint SPDC/EPG/EPT workshop in Nigeria to address these issues. We would much appreciate your input on how to structure this workshop, but would hope to achieve the following:

A better appreciation of the cause of operational and third party deferments and the current management framework and processes used to address these. An assessment of where RtL efforts can be best targeted e.g. increasing potential through new RtL reviews, implementation of identified gains, increased focus on operational deferments, implementation of new technology. An assessment of whether existing resources are being best deployed to address operational deferment and whether there would be benefits in tackling specific issues on a company wide basis.

An assessment of the benefits of additional RtL support and where this could be best applied. An assessment of whether the management framework in SPDC could be enhanced in order to reduce operational deferments and better direct RtL initiatives.

I believe Sam and Egbert will be in The Hague on Thu/Fri this week. Please could we take this opportunity to discuss the above proposals.

Regards,

Chris
From: Bichsel, Matthias M. /777264
To: Darley, John J.
CC: Lohr, Fran F.A. /157182; Malouta, Dean D.N. /172958; WARD, BRIAN B.J.
BCC:
Sent Date: 2002-01-20 09:30:41.000
Received Date: 2002-01-20 10:41:57.000
Subject: FW: SHELL BRASIL TECHNOLOGY PLAN
Attachments: SBEP_TechPlan_final.doc

John,

see attached the technology plan for Shell Brazil. When browsing through it, you will note the emphasis on several key challenges that you have mentioned such as oil production of intermediate API crude and cluster development (=novel engineering concepts), but also further effort in hc prediction from seismic and drilling/operating in ever increasing waterdepths to allow us to monetize both the current as well as future discoveries within the time frame stipulated by the PSCs.

I would like to suggest that you spend some time on your February visit to Houston with the Brazil teams and Dean Malouta and his technology focal points to satisfy yourself that your requirements are met and concerns addressed. We realise that Brazil poses a huge challenge and we know we need to pull in all resources that we can to deliver BS-4 and other discoveries successfully.

We will include a summary of the plan into the Deepwater Business plan.

Regards,
Matthias

-----Original Message-----
From: Haney, John BRAZIL-UT
Sent: Friday, January 18, 2002 6:04 AM
To: Bichsel, Matthias SIEP-EPT-D
Subject: SHELL BRASIL TECHNOLOGY PLAN

Matthias,

First of all, Happy New Year and congratulations on your new ExCom assignment!

I understand that you will be giving a deepwater presentation at the ExCom on Monday with one area being Technology. Attached for your information is the SBEP Technology Plan that we completed in December with SDS's assistance:

The first monthly meeting (which I will chair as the owner for this process) will be held at the end of January to ensure progress and management alignment.

Regards,
John
Asset & Agreements Director
Shell Brasil S.A.
Tel. 55-21-3984-7343
e-mail - John.Haney@shell.com.br
SHELL BRASILEP

Technology Plan 2001

December 2001
SUMMARY

Summary

Shell Brasil E&P (SBEP) is an NVO based in Rio de Janeiro with technical support provided by SDS in Houston. It was staffed up between 1998 and 2000 as a division of Shell Brasil S.A., with the challenge of building a balanced deepwater portfolio. During the past year significant progress was made against this mandate. Current assets include exploration blocks (3 Shell operated and 4 non-Shell operated) and the Merluza field, operated by Petrobras. SBEP has concluded an initial nine well exploration program in the BC-10, BS-4 and BC-2 blocks resulting in five discoveries. Appraisal planning and evaluation of remaining exploration potential has started, and the Stena Tay drilling unit has been committed to remain in country to execute the extended drilling campaign.

Having achieved initial success we must move decisively to appraisal and development planning to achieve effective FID by August 2003, the license expiry date of our Round “0” blocks. The present SBEP deepwater portfolio consists of predominantly satellite sized discoveries and prospects with intermediate gravity oil. The successful development of these discoveries will depend on novel cluster development solutions and the application and progression of the Group’s latest technologies. In addition to the deepwater oil portfolio, the Brazil focus has been extended to consider non-associated gas opportunities.

The SBEP technology plan has been developed to provide a framework for the technology effort required to mature the Brazil portfolio. The document describes the technology requirements and an implementation plan. Key themes are hydrocarbon prediction from seismic, intermediate API oil production, cluster development and pushing the deepwater envelope. The Technology Plan will serve as a vehicle to raise awareness and will enable SBEP to apply new technologies ahead of the competition.

The document is intended for the SBEP and SDS-Brazil community and will be kept evergreen and updated with the latest Technology views and requirements as information comes available.
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