1. Who is Nexen
2. Buzzard
3. Scott/Telford
4. Ettrick/Blackbird
5. Ongoing Developments
6. Rochelle
7. Scott Oil Export Replacement Project
8. Golden Eagle
WHO IS NEXEN?

• Canadian-based global energy company (stock symbol: NXY)

• Producing Assets:
  • UK North Sea, Canada, Gulf of Mexico, Yemen, Colombia & West Africa

• 2nd largest oil operator in the UK

• 1,200 employees in UK
  • In Aberdeen, Uxbridge & Offshore

• Due to move to new purpose built offices in Kingswells end 2013
UK NORTH SEA – PRODUCING ASSETS & FUTURE GROWTH

Producing Fields (Gross):
- Buzzard 200-220K boe/d
- Scott/Telford 30-45K boe/d
- Ettrick/Blackbird 15-30K boe/d

Growth Opportunities:
- Bugle, Golden Eagle Area, Rochelle & others
NEXEN ASSETS - UKCS

- Buzzard
- Scott / Telford
- Ettrick / Blackbird
BUZZARD FIELD

- Largest field discovered in the North Sea in the past 25 years
- Nexen has increased reserves by ~50% since acquisition
- Reserves >700 million barrels gross
- Current production rate ~220K boe/d gross (95K boe/d net)
- Expect to maintain plateau production to 2014
BUZZARD FIELD OVERVIEW

Buzzard On-Stream 2007

- 1x18” Oil Export into Forties Pipeline
- 1x10” Gas Export line into Frigg Gas Line
- 2 x 16” Water Injection pipelines
• Additional platform with expanded H₂S facilities
• Project sanctioned early 2008
• In service Q4, 2010
• Capital cost of facilities ~ $800-$930 million
• Designed to handle H₂S up to 500 ppm wt
• Major tie-ins & jacket installed Q3, 2009
• Topsides installation 2010
• On time and on budget
• Current combined production rates:
  • 30-45K boe/d (gross)
  • Reserves at ~50 million barrels

• Further extension was completed in 2012 with the addition of ETPRM tree G20 and new 10” production pipeline to Central Telford PL2675

• Several Nexen & Third Party discoveries in the area under evaluation as subsea tie-backs to the Scott platform
SCOTT / TELFORD FIELDS OVERVIEW

**Scott On-stream 1993**
- 24” Oil Export to BP Unity
- 10” Gas export to SAGE Tee
- 7 Subsea Production Lines
- 6 Subsea Water Injection Lines

**Telford On-stream 1996**
- 2 Subsea Production Lines
- 1 Gas Lift line
- 1 Methanol Line
- 1 Water Injection Line
- East Telford added 2000 through CTM

**East Telford on-stream 2002**
- 1 production pipeline
- 1 gas lift line

**East Telford PRM On-stream 2012**
- 10” production line
ETTRICK/BLACKBIRD FIELD

- On stream August 2009
- Field developed via a leased FPSO – Aoka Mizu
- Design capacity of 30,000 bbls/day
- Blackbird brought on stream Nov 2011
**Ettrick On-Stream 2009**

- Export oil to shuttle tanker - 2x8” flexibles
- Gas Export to SAGE pipeline – 1x6” flexible
- Gas Lift – 1x4” flexible
- Water Injection -1x10” flexible
BLACKBIRD TIE-BACK TO ETTRICK
ONGOING DEVELOPMENTS

- ROCHELLE – Q4 2012

- SCOTT OIL EXPORT REPLACEMENT – Q3 2013

- GOLDEN EAGLE (GEAD) – Q4 2014
ROCHELLE FIELD DEVELOPMENT

• 10” Pipe in Pipe East Rochelle to Scott SSIV and 14” Carrier Pipe
  • 30km long
  • API 5L X65 CS
  • Design Pressure 245barg
  • Design Temp -40 to 85 Degrees C
  • Trenched and Buried

• 7” Scott SSIV to Scott Topsides
  • 0.7km long
  • 316L SS Carcass Flexible
  • Design Pressure 245 barg
  • Design Temp -20 to 85 Degrees C

• Water depth 134m – 146m
• Design code PD 8010
• 2 x Umbilicals trenched and Buried
Rochelle Field layout

Scott Scope

Rochelle Scope

10" Pipe-in-Pipe

Endeavour
Rochelle Field Development
Overall Field Layout
ROCHELLE PROJECT OVERVIEW (TOPSIDES)

- Separation
- Chemical Injection
- Methanol Injection & Storage
- Mult-System Multi-Work Area
- Umbilical Pull-In
- Reception Facilities
- Subsea Controls
ROCHELLE SCOPE OF WORK

• Project Management, Design Engineering, Procurement, Fabrication, Installation & Commissioning of the following:

  • Approx 30Km of PIP consisting of 14” OD x 16mm WT HFI pipe c/w 3LPP & 10” OD x 20.6mm WT Seamless bare pipe. Laid by the Apache II in 4 trips
  • C2 Riser cut & installation of new riser section c/w connecting clamp & supports.
  • Installed upfront of main project offshore phase by DSV.
  • J2 ‘J’-Tube pigging and messenger wire installation.
  • I-tube pull & lay of approx 30.75Km of COMPANY supplied Umbilical supplied in one length installed by the Construction Vessel (TBC) in 1 trip.
  • SSIV structure & CS pipework at Scott Platform end. Installed by DSV.
  • 1No 10” OD CS Tie-In Spoolpiece at SSIV. Installed by DSV.
  • 7” Production Flexible installation between SSIV and Scott Platform. Installed by DSV.
  • Manifold Structure c/w Duplex Pipework located adjacent to Rochelle Well. Installed by DSV.
ROCHELLE SCOPE OF WORK

- 2No 10” OD Duplex Tie-In Spoolpieces from pipeline to manifold. Installed by DSV.
- 2No 6” OD Duplex Tie-In Spoolpieces from manifold to Rochelle well.
- Pre-Cut Trenching for Umbilical.
- Post-Cut Trenching for PIP then Backfill for PIP & Umbilical
- 4No. Crossing arrangement for the PIP & Umbilical over existing pipelines and umbilicals utilising concrete mattresses and rockdumping. Mattresses installed by Survey/Utility Vessel & DSV.
- Mattress installation over tie-in spoolpieces. Installed by Survey/Utility Vessel & DSV.
- Rockdumping over flexible riser and riser umbilical section.
- J2 ‘J’-Tube preparation works. Performed by DSV.
- All post-lay, pre-lay and as found survey support for pipelay, umbilical lay, flexible lay, crossing installation, structure & spoolpiece installation and mattressing. Performed by Survey/Utility Vessel.
Subsea – Riser & Umbilical J-Tube Scope

C2 Riser Converted to Umbilical J-Tube

J2 J-Tube - New Bellmouth Assembly
Installation of new subsea turn tube & Bellmouth Assembly for umbilical;
New Subsea turn tube & Bellmouth Assembly for Umbilical;

- Split Temporary Bellmouth
- Primary Seal Assembly
- Secondary Seals
- Sampling & Flushing Assembly
The Golden Eagle (Burns) discovery was made by well 20/1-6 in December 2006

- approximately 113 m water depth
- 70 km offshore Scotland, 19 km north of the Buzzard field, 21 km northwest of the Ettrick field
- recoverable reserves: 98-138-185 mmboe
The Golden Eagle Area Development

- Development covers the Golden Eagle & Peregrine fields.
- Located across Blocks 20/1N, 20/1 and 14/26a of UKCS
- Approximately 70 km offshore in 105m water
- Large area extent requiring multiple drill centres
- Within area of existing pipeline and operational infrastructure
## GOLDEN EAGLE

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<tr>
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<th>Maximum Rate</th>
<th>Plant Capacity</th>
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<td>Oil Production</td>
<td>kstbpd</td>
<td>65</td>
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<td>Produced Water</td>
<td>Kbwpd</td>
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<td>Water injection</td>
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GOLDEN EAGLE (GEAD)

Gas Export Pipeline to SAGE via Ettrick PLEM
- Approx 18 km
- Southern Drill Centre Manifold
- 2 wells initially: 1 production 1 Water Injection

Oil Export Pipeline to Claymore Skid
- Approx 70 km
- 14” X65 seamless

- All lines/umbilical's trenched and backfilled or protected
- 6 x Pipeline or umbilical crossings

PUQ Platform
- Jack-up Drilling

Wellhead Platform
- 4” X65 seamless
- 6” X65 seamless
- 6” duplex
- 6” 625 mechanically lined Cladtek

BP-HBX
BI-KBU

Southern Drill Centre Manifold
- approx. 4.5 km tie-back
- 2 wells initially: 1 production 1 Water Injection

6” 625 mechanically lined Cladtek
<table>
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<tr>
<th>Pipeline</th>
<th>Length (km)</th>
<th>Fabrication</th>
<th>Procurement Start</th>
<th>Delivery Coated to Evanton</th>
<th>Current Status 1st Feb 2012</th>
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<tr>
<td>14&quot; Oil Export</td>
<td>69</td>
<td>Tenaris, Dalmine Italy</td>
<td>15-Dec-11</td>
<td>31-Aug-13</td>
<td>Steel Making to commence 3rd Feb 2012 as per current Tenaris schedule</td>
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<td>6&quot; Gas Export</td>
<td>18</td>
<td>Tenaris, Siderca, Argentina Italy</td>
<td>15-Dec-11</td>
<td>15-Oct-12</td>
<td>Steel Making to commence 3rd Feb 2012 as per current Tenaris schedule</td>
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<td>6&quot; Production</td>
<td>4.7</td>
<td>Saltzgitter, France</td>
<td>27-Jan-12</td>
<td>16-Jul-12</td>
<td>L.O.I. placed, date for Audit/PPM T.B.A. early March</td>
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<td>10&quot; Production Carrier</td>
<td>4.7</td>
<td>TATA Steel (Port Talbot) Hartlepool (Rolling)</td>
<td>27-Jan-12</td>
<td>15-Oct-12</td>
<td>L.O.I. to be placed week 6, date for Audit/PPM T.B.A.</td>
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<td>4&quot; Gas Lift</td>
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<td>Tenaris, Siderca, Argentina Italy</td>
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<tr>
<td>6&quot; Water Injection</td>
<td>4.7</td>
<td>Cladtek, Batam, Indonesia (Tenaris Siderca supplied Carbon Steel outer pipe)</td>
<td>27-Jan-12</td>
<td>15-Oct-12</td>
<td>L.O.I. placed, date for PPM T.B.A. end March/early April</td>
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PUQ & W JACKETS

• Current Gross Dry Weight 5,981Te
• Topsides Maximum Operating Load 15,000Te

• Current Gross Dry Weight 6,237Te
• Topsides Maximum Operating Load 8,000Te
TECHNIP EVANTON SPOOLBASE 14” OIL EXPORT PIPELINE
14" GOLDEN EAGLE OIL EXPORT PIPELINE
14” GOLDEN EAGLE OIL EXPORT PIPELINE
**SCOTT OIL EXPORT REPLACEMENT PROJECT SUMMARY**

**Why?**
IP runs in 2007 & 2009 show corrosion in 1st 7km. Life to 2013 with MAOP reduced to 100barg

**What?**
Replace 7km of 78km x 24” line from Scott platform, “like for like”

**How?**
S-lay pipe. Suction anchor. Diver tie-ins with mechanical connector. De-oil, dewater

**When?**
Pipelay 2012. Tie-in 2013

**Who?**
Lay - Saipem
Tie-in - Subsea7
CoV - Apache, Premier, Maersk, Dana
Unity/FPS – BP & AMEC

**Big Risks**
Scott prod outage, expectation & escalation
De-watering budget escalation
Shutdown date uncertainty
BP/AMEC interface, Unity working
Pipeline cut and connect
SOER PROJECT STATUS SUMMARY / UPDATE

Scott Export Pipeline Details
- Route: Scott to BP Unity
- Diameter: 24”
- Length: 78km
- Commissioned: 1993
- Design Life: 20yrs to 2013
- Design MAOP: 162bar
- Design flow rate: 200,000bbl/day

Project Status Update:

- IP pig run of existing line completed (results under interpretation)
- New line installation and testing completed
- Project is maintaining target cut and tie in of new pipeline during 2013