Cormorant East

UKCS record for oil field development: 85 days from discovery to first oil

Rob Kuyper – Development Manager TAQA Bratani
Outline

• The “Contender” prospect

• The challenges
  • Block ownership, Field boundaries, Tax, Economics

• Tax intermezzo
  • Stay awake

• DECC help

• Timeline and results

• Key points to take away
TAQA Operated Assets - Northern North Sea
Contender prospect location – near infrastructure

TAQA Assets

Rob Kuyper, TAQA Bratani, 27 February 2013 - www.taqaglobal.com
Contender prospect location – known Brent play

Brent reservoir
- “Slump block” off North Cormorant

Key risks:
- Oil fill
- Rock properties: diagenesis

North Cormorant “Block IV”
Contender prospect location – difficult seismic

Faults difficult to interpret
Contender opportunity
Drillable from recently reactivated rig on North Cormorant platform
Challenge 1: Block ownership

- Contender prospect in block without TAQA equity
- Contender prospect too small to justify own development
- TAQA owns infrastructure that can drill and produce the prospect

Solution:

TAQA drills well and earns equity. Contender partners benefit from development

Win-win
Tax intermezzo

Corporation tax on profits: **62% TAX**

- 30% Corporation Tax (CT)
- 32% Supplementary Charge (SCT)
  
  Can be reduced by **allowances**

  **Small Field Allowance (SFA), Brownfield Allowance (BFA)**

**Petroleum Revenue Tax (PRT)**

- Additional 50% tax on remaining profit on top of Corporation tax
- Field based tax, for fields with development consent pre 16 March 1993
  
  North Cormorant is a PRT paying field

- Effective tax rate with CT+SCT+PRT: **81% TAX**
Tax intermezzo

Options to help economically marginal developments like Contender

1. Small Field Allowance
   - For new fields with FDP reserves below appr 40-50 mln stb oil
   - Up to £150 mln allowance on SCT (so 32% x £150 mln = £48 mln less tax),
     to be earned through production revenue

2. “Redetermination of oil field boundaries on economic grounds”
   - Carve-out part of a PRT-paying field, if development is commercially difficult
   - Allows an unexploited part of a previously determined PRT-liable field to be a new, separate field

Note that “Brown Field Allowance” was only introduced 7 Sep 2012

https://www.gov.uk/oil-and-gas-taxation
Challenge 2: Field boundaries

- Contender prospect just outside North Cormorant field area

- Drilling a North Cormorant well would normally get PRT-relief on costs.

- Contender exploration would not be economically attractive without this relief.

Solution:

Extend North Cormorant field boundary to include Contender

Win-win
Challenge 3: Economics

- Contender Chance of Success less than 50%, with small mid-case reserves
- Expensive long-reach well
- Development would be unattractive in PRT-paying North Cormorant field area

Solution:

Carve out new field “Cormorant East” on economic grounds (no PRT, Small Field Allowance)

Win-win
DECC support

- Extend North Cormorant PRT boundary to include Contender prospect
  PRT relief on Contender well

- Review and support Field Development Plan before discovery

- Cormorant East carve out from North Cormorant PRT area on economic grounds
  PRT-exempt development
  Small Field Allowance for new field

In summary
Contender drilling and Cormorant East development would not have been commercially attractive without the above support by DECC.

No development = no profit = no tax income  Win-win
Timeline

How to achieve 85 days between discovery and new field production?

• Farm-in agreement – April 2011

• All development preparations worked before well spud
  • Permits, Licences, Authorisations, Notifications and Consents
  • Field Development Plan and Field Determinations (carve out)

• All development equipment ordered before well spud
  • Completion, ESP, hookup – re-usable in case of failure

• Well spud September – oil found on 17th October 2012

• Direct turn-around in DECC, while completing the well

• First oil on 10th January 2013
Well results

Contender well found

- Thick Tarbert sand
- Fully oil filled
- Good reservoir properties
- 10-30 MMstb oil in place?

However…

- Crossed a fault into Triassic below Tarbert: no further Brent sands
- More reservoir and volumes expected downdip and in other fault blocks
Current status

Start-up rate around 5,000 barrels/day

Some production disturbance due to
- Cormorant Alpha shutdown
- Well integrity (tubing-annulus communication – investigation ongoing)

TAQA currently working on further development plans
- ESP start-up
- Further appraisal drilling down-dip
- Add water injection
What did we learn?
Key points to take away

• Plan for development while exploring
  • Short timeline to first oil
  • Mature basin: infrastructure will not be there forever
  • Normally limited regret costs

• Know tax options
  • Allowances and options available to make marginal developments commercial

• Most of the time, there are ‘win-win’ scenarios
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