



The back side of the curve

Posted by [Heading Out](#) on November 10, 2005 - 2:34am

Topic: [Supply/Production](#)

Tags: [north sea](#), [peak oil](#) [[list all tags](#)]

There were a couple of comments in the last post that need a little more visibility. Firstly [Essex Landrover Man](#) noted that Norwegian production from the North Sea has dropped about 300,000 bd comparing October 2004 with Oct 2005; and then [Nick Rouse](#) commented that for July 2005 the UK production drop over 2004 was 387,000 bd or 21% reduction.

This is an accelerating trend and considerably worse than the numbers earlier in the year. It is, unfortunately much more than the 6% historical average that is used in much of the modelling of overall long term production (especially by Saudi Aramco, as I mentioned in my comments on the IEA Outlook earlier.)

It is the combination of a large number of current fields beginning to decline at this rate in the relatively near term that is a current reason for concern. Remember that the North Sea was produced with concurrent waterflood and the advanced techniques that are also in use in Saudi Arabia, and remember that when they were used in the Yibal field in Oman they led to the collapse of production there.

Regardless of how much oil is in the ground, for it to be useful it has to be brought out of the ground and transported away. If the current field production declines more rapidly than anticipated, then additional wells have to be drilled in order to reduce overall production loss. But if you drill these in the existing field, then, unless the field still contains large untapped areas (only likely while the production was overall increasing) then adding wells accelerates pressure drop, and the rates of production from existing wells in the field. So that, before long, the rate of decline might increase.

So one has to move to other fields. In some cases that is possible, but generally the biggest fields were tapped first and so production from the smaller fields will not be as high or as long-lasting.

So more wells will have to be drilled. And a point is reached, for every country, where there are not enough new fields, or wells, to maintain production. This is much the same point that I was making the other day, but I am repeating it because of the complication of overall reserve numbers which indicate one thing, while at the present we should, probably, be actually concerned about something else. And in the immediate short-term (until 2010) the concern is getting enough oil out of the ground to satisfy demand.

The point is that we largely know what the production gains are likely to be in that time frame - and the data from a number of places suggests even the numbers that we have may be optimistic - and if we are now seeing that existing production will decline in these five years beyond current expectation, then the concern is that when these two numbers are added there will be a shortfall against demand, and what we are seeing now is that the current concern may even be viewed in hindsight as overly optimistic.

I wonder if someone will ask Chris Skrebowski about this in the morning ?



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