Updating Saudi oil production plans

Posted by Heading Out on August 9, 2005 - 5:41am

The attached rough map is derived from one in the OGJ and shows the current oilfields along the Saudi coast, with those contributing to production shown in gold. (To give a sense of scale the island of Bahrain at the bottom is about 30 miles long).

Questions upon the likelihood of the world being able to match oil supplies with demand, usually devolve onto how much oil will be exported from Saudi Arabia. Just this last week the EIA site describing that country was updated, following the accession of King Abdullah.

Among the things to note are:

> In June 2005, Saudi Aramco's senior vice president of gas operations, Khalid al-Falih, stated that Saudi Arabia would raise production capacity to more than 12 million bbl/d by 2009, and then possibly to 15 million bbl/d "if the market situation justifies it." Falih added that by 2006, Saudi Arabia would have 90 drilling rigs in the Kingdom, more than double the number of rigs operating in 2004.

Since a check on the number of active drilling rigs has shown only about 30 rigs actually drilling, until recently, this is a sign that they are getting serious about meeting that commitment. To digress just a little, however, J drew attention to the recent contract that will take 5 offshore rigs, from the Gulf of Mexico to Saudi Arabia at the end of the year.

The interesting thing is that if we look at the announced plans to increase Saudi oil production, the extra oil is to come from the following fields;

Haradh - 300,000 bd, due in February, 2006
Khursaniyah 500,000 bd, due in late 2007
Shaybah - 500,000 bd, due in 2008 (this is down in the Empty Quarter)
Khurais - 1,200,000 bd, due in 2009.
and Nuayyim - 100,000 bd, due in 2009 and which has been added since the initial announcement about increases in production. (This is almost due South of Riyadh and off the previous map, and may be a part of the initiative to open up the Central Arabian fields.)

All all these sites are on land (see earlier map here and current map of the offshore fields). None of the increased production is to come from offshore. So why are they bringing in these platforms?

The answer lies in another quote from the EIA page.

> One challenge for the Saudis in achieving this objective is that their existing fields sustain 5 percent-12 percent annual "decline rates," (according to Aramco Senior Vice President Abdullah Saif, as reported in *Petroleum Intelligence Weekly* and the

> *International Oil Daily*) meaning that the country needs around 500,000-1 million bbl/d in new capacity each year just to compensate.

These numbers have been much discussed, in earlier posts here and conjectured about by a number of authors. But this is an upgraded set of values and I will write more on this in a specific post, following this one. But it is worth noting that this drop will require an significant number of additional new wells each year, over and above the new production wells. And in light of our earlier comments this is where the extra 60 drilling rigs will come into play. (60 rigs x 6 wells per year x 3,500 bd per well, is close enough to 1 mbd per year of new production).

As for the drilling rigs from the Gulf, they will most likely be used at Safaniyah and Marjan, since the Qatif and Abu Safah fields that were brought on line this year are still a little early to see much depletion and also will likely still have the drill platforms there that were used for the initial increase in production.

It should also be remembered that about 2 mbd of Saudi production is now used internally, and the EIA page shows a steady increase in that demand.

The contract to start the Khurais development, due on stream in 2009, has just been given to Foster Wheeler Energy Ltd.

To repeat the numbers from a couple of earlier posts that specify the totality of Saudi Production. According to Cordesman and the CSIS
they intend to bring production up to the following numbers
Abqaiq - 400,000 bd
Ghawar - 5,500,000 bd
Berri - 400,000 bd
Safaniya - 1,500,000 bd
Abu Sa'fah - 300,000 bd
Zuluf - 800,000 bd
Marjan - 450,000 bd
Haradh - 170,000 bd
Shaybah - 500,000 bd
Munifa - 1,000,000 bd

This gives the 11 mbd that they claim to be able to currently produce - though it includes Munifa, of which we have commented negatively earlier.

When this is added to the new production outlined above, and when you include an anticipated 800,000 bd loss due to old fields declining, the sum comes in just over the required number.

What it does not do is include more than one year of current declines in production from the existing fields (and again this might be the role for the new rigs being brought in).

A n earlier estimate of production in Saudi Arabia at the beginning of the year was as shown below, with the flow given in thousands of barrels a day (kbd):
Abqaiq 400 kbd;
Abu Sa'fah 200 kbd;
Berri 300 kbd;

Ghawar 4,500 kbd;
Hawtah 200 kbd;
Hout 300 kbd;
Khurais 300 kbd;
Marjan 270 kbd;
Qatif 800 kbd;
Safaniya 700 kbd;
Shaybah 600 kbd; and
Zuluf 500 kbd.
This adds up methinks to 9.07 mbd.

Technorati Tags: peak oil, oil
