

Tech Talk - Where to Expect More Oil to Come This Year

Posted by <u>Heading Out</u> on August 25, 2013 - 1:04am

The news that Saudi Arabia is planning to employ 200 drilling rigs next year (up from 20 back in 2005) suggests that there is a recognition that future reserves may not measure up to the planned volumes needed. Plans now include exploration of the shale deposits in the country, looking primarily for natural gas. There are estimates that this resource could run as high as 600 trillion cubic ft. Current plans are to drill seven exploratory wells in the Red Sea, off Tabuk.



Figure 1. Location of Tabuk in the Kingdom of Saudi Arabia (WikiMedia)

This is across the country from the major oil fields currently in use, which lie more along the Persian Gulf coast, centered perhaps around Damman. It therefore suggests that they are looking for extensions of the Israeli and Egyptian fields into northern KSA. (Minister Al-Naimi said that they still "had to find them.")

In discussing the venture Saudi Minister of Petroleum and Mineral Resources Ali Al-Naimi <u>also</u> <u>noted</u> that, choosing to look for – and presumably finding - natural gas, would take the pressure off the country to maintain its oil reserve.

Al-Naimi said that prospects for global production of shale gas and oil – including in

China, Ukraine, Poland and Saudi Arabia – were so promising that the Kingdom might not need to continue with its decades-long policy of maintaining an oil-output cushion for use in global supply disruptions. "It is not a question whether Saudi Arabia has spare (oil) capacity. It is a question of whether we need to spend billions maintaining it at all," Al-Naimi said.

Now over the years KSA has lowered the volume it has projected that it can produce from 12.5 mbd to 12 mbd, and this is, perhaps, an early indication that they intend (whether by policy or natural reserve availability) to lower that maximum further.

This has to be of at least a little concern, since the number of places with significant flexibility to increase production are getting closer to zero every year. The gains in global production that are <u>foreseen by OPEC</u> in the next year, for example come in dribs and drabs.

OPEC notes that in May the 8,915 producing wells in North Dakota collectively produced over 800 kbd. (The <u>Department of Mineral Resources</u> reports 821 kbd in June, over the 811 kbd in May with well numbers of 8,932 in May and 9,071 in June. Production per well is thus running an average of 90 barrels a day, with a well cost of \$9 million.) There are 187 rigs plus/minus working and this is still enough to keep production rising at a rate of 1.3% per month. One of the maps I find interesting is this, from the Department.

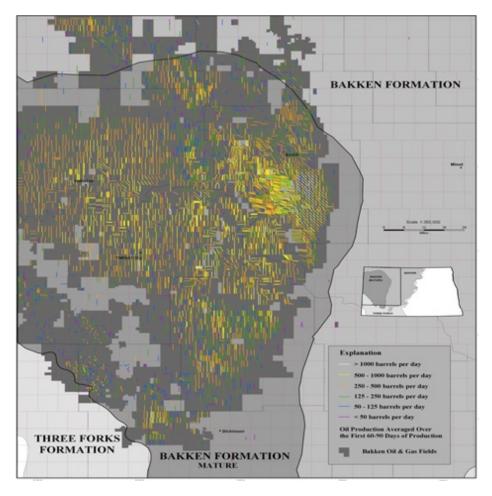


Figure 2. Location and production values for wells in North Dakota (<u>Department of Mineral</u> <u>Resources</u>)

It is this illustration of the relatively heavy drilling already in the "sweet spots" and the poorer

performance in the less well- drilled regions that gives me concern for the longer term prospects for the formations. And as an aside note, that crude from Alaska is declining, <u>July output was 498 kbd</u> against the year-to-date average of 542 kbd. The EIA is noting that since there aren't any major oil pipelines running into California from the East, that there is <u>an increase in rail traffic</u> to make up the difference. The EIA is suggesting that the traffic is already at a level of around 100 kbd.

And this in happening in the most promising region to increase production (though it includes Canada, for which OPEC projects a growth over the year of around 40 kbd, and is set against Mexican production, for which OPEC sees a decline of around 60 kbd).

Malaysia is projected to increase production by 50 kbd, from the Gumusut field. This is a Deepwater project, and one can get some estimate of the shape of the field from the well pattern. The production gain is viewed by OPEC as likely being the highest in the region.

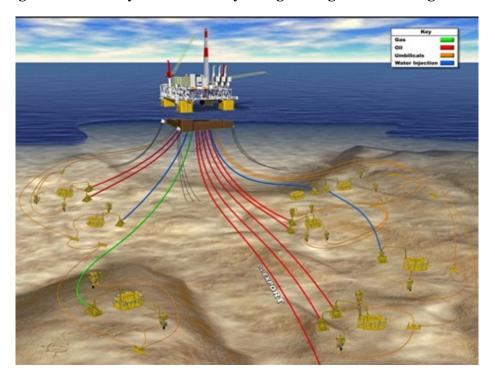


Figure 3. Planned Well pattern for the GUMUSUT KAKAP project in Malaysia (Rawingbadi)

In Latin America Colombia is expected to increase production by 80 kbd, though the country is having some issues with pipe damage from terrorism. There have been <u>more than 30 attacks</u> this year. OPEC also looks for an increase in Brazilian production of 10 kbd over the year, this gain coming after some 14 months of decline, which drop will hopefully be recovered before the end of the year.

Oman will grow production by 20 kbd, but it is in Sudan and Southern Sudan that OPEC anticipates the greatest growth, of 90 kbd. However the two countries are not the best of friends, with oil from Southern Sudan having to ship by pipeline to Sudan, for shipment onwards. At present oil, at an <u>average rate of 75 kbd</u> is continuing to flow up the pipe, but Sudan continues to threaten to halt shipments, leading Southern Sudan, in turn, to plan to shut-in the wells. The OPEC projection seems to be best defined therefore as "iffy."

OPEC expect Russia to increase production by 80 kbd in 2013, yet there is some caution in that estimate, with other numbers suggesting that Russia is reaching a modern peak in production. Kazakhstan is projected to increase production by 50 kbd (coming from the startup of Kashagan, now expected at the end of September). The 100 kbd production will more than offset declines in

The Oil Drum | Tech Talk - Where to Expect More Oil to Come This Year http://www.theoildrum.com/node/10201 the rest of the country. And China may increase production over the year by 60 kbd.

I have listed the countries that OPEC anticipates will grow production by more than 10 kbd, and have not listed the many countries that will see production decline by more than that amount. It is remarkable that listing the increases in production outside of OPEC can be done with just a few paragraphs. And it is a little disturbing that the threats to pipeline security throw questions over the reliability of some of the numbers. Yet this only addresses the possible growth in production - declining producers would require a much longer list. Combined it becomes a little more difficult, as turmoil in MENA continues to grow, to remain optimistic over the OPEC projections.

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