



Water and Oil - another trip to Aramco's plumbing

Posted by [Heading Out](#) on February 13, 2007 - 11:34pm

Topic: [Alternative energy](#)

Tags: [ain dar](#), [ghawar](#), [manifa](#), [mexico](#), [north sea](#), [qurayyah](#), [saudi arabia](#), [shedgum](#) [[list all tags](#)]

Hmm! Maybe the next book review I'll do will be "The Boy's King Arthur." Well actually, given the controversy about him (he was a Celt and they ultimately lost – after he died - so he has been relegated to mythical status. The winners write the history books), perhaps that might not be such a good idea. I recently looked at an NRC survey showing the classes of disciplines at a University and while history had more than 8 subdivisions as I remember, there was no mention of energy per se, or most of the energy production disciplines – so just imagine the columns of controversy I might generate. But it also speaks, by itself, to how important certain issues are ranked in the corridors of the mighty.

So let's get back to the status of the world of oil. And while, as one of the recent conferees noted, the public thinks that, since prices having dropped back "we survived the energy crisis," sadly the world picture is really getting worse. Sometimes, when I have looked at what we have projected, I have consoled myself with the thought to myself along the lines of "well these are the lower estimates, it really isn't going to be that bad." Unfortunately the numbers that are now starting to pop up hold no such comfort, and are beginning to confirm what our contributors have been predicting for a while.

As Prof G posted the other day, Matt Simmons thinks that we will peak this year, because the spare capacity to replace the collapsing fields of Mexico and the North Sea is just not there. Both [Khebab](#) and [Euan](#) have explained the issues with Mexico, and the [Financial Times story](#) in Drumbeat gives the UK situation. Much hangs on whether Saudi Arabia is going to be able to help match the declines that are now becoming apparent. Unfortunately there are a couple of possible flies in this particular ointment.

The first of these is that while Paul Roberts mentioned last week that the spare production available between current demand and actual supply is around 2 million barrels, a nasty suspicion still sits in my mind thinking that Saudi Arabia is counting the [Manifa field](#) as part of that capacity. After all the KSA stated goal for their capacity for production increase matches that 2 mbd number. However, once discovered production from the field was [suspended](#) because, as numerous posts have noted, the chemistry of that oil will require a [special refinery](#), and after trying to sell the crude on the world market, Aramco have given in, and are now building their own refineries to deal with it. As a result the oil from the field, projected at around 900,000 bd, will not come on line [until 2011](#), which is going to be a tad late. Concurrently the volume of that flow is just about at the level at which, in the past, Aramco officials have said that the KSA fields are declining in production each year, so that when it arrives it may do no more than hold the

levels of the then current production, rather than increment it.

Along which line, Leanan had a story the other day relating to the new water pumping station that has just been brought on line. What is worthy of note is where all the water is going. (See I did warn you). And for those who have not followed this for very long, let me very quickly explain something again.

The oil field that we talk about as [Ghawar](#), the world's largest, is often considered, not as a single field, but rather as different parts. Some of the most productive regions have been the Ain Dar/Shedgum portions, which are to the north end of the main field. These are the regions that have been producing at around 30% water cut, and are some of the oldest of the producing regions of the Kingdom, with a current water injection rate of [2 mbd](#). It is thus interesting to see look at the new water pumping stations that are being installed. The new construction for the Qurayyah Seawater Treatment Plant to be used to supply seawater for the [Khurais expansion](#) that has been put in and will provide the fields with 4.5 million barrels of water, to help in pressure maintenance and production. The overall water capacity of the plant has, however, [grown to 14 mbd](#). Of this flow some [2.5 million](#) will now go to the Ain Dar/Shedgum fields. Wonder what that will do to the water cut? Which is, if I remember, how Paul Roberts started [The End of Oil](#). That title seems a bit closer these days.



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](#).