



Some easy math on oil production

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Well, since in some of the kind references to this site, we have been getting a reputation for being a little nerd-like, maybe I should continue the explanation as to why we can't just wave a wand or turn a tap and get more oil.

If you remember the party trick I suggested of floating cream on coffee (if you've never done it before you might want to practice a bit before you do it in public). Well that was only the first part of the story.

The point of that example was to show that you can only draw a certain amount of oil from a well at one time before you ruin the flow pattern, and potentially kill the well. The only way to get more oil out of that field is to drill some more wells.

Matt Simmons in slide 41 of his presentation on the [Saudi Arabian Oil Miracle](#) gives some numbers to the next point. Bear in mind that the wells being drilled are in the most productive region in the world. By his figures, at present each well in Saudi Arabia averages a production rate of around 2,000 barrels a day (bd). To maintain flat production against the current falling production in some of the older fields will take 46 rigs drilling 333 wells. In fact, since then the Saudi Aramco officials have said that production is dropping at around 800,000 bd in those fields so about 400 wells, and since Mr Simmons figures suggest that each rig can drill around 7 wells a year, then it will now take 57 rigs just to sustain production. To bring on the additional half-a-million bd each year, that Aramco are promising, will require another 250 wells or 36 rigs for a total of around 93 drilling rigs. You might ask how many do they have now? According to [a press release in February](#) they have 34 and are doubling this number to 70 by the end of this year.

The other problem is that, when you start developing a field, it takes some time to put in all the supporting infrastructure, and so while [the Aramco plans](#) will provide some increase in production, it is hard to see how they can, within the next two years, produce any additional oil beyond their current predictions. And that does not take into account the possibly greater declines in their older, and larger fields. But that (with the aid of a Super Soaker analogy) will be the topic for another post.

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