



Why the oil pumps can't pump harder!

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The oil business is one of great complexity and there are some challenges even in trying to explain some of the basic reasons why, when price goes up, producers can't just turn a tap and pull more oil out of the underground reservoir.

I was trying to think of a way of explaining it, and offer the following, in the hope that not too many of those who know reality will be offended at the simplification.

Way back at the beginning of the current Elizabethan era it used to be fun, after dinner, to float cream on top of coffee. I still do it when the cream is of the right sort, and it gives the coffee a different taste. Putting the cream over the coffee is a bit of a challenge, you start by using the back of a spoon, and when you get better pour it down the side of the cup.

So now we have quarter of an inch of cream floating, unmixed, on top of the coffee. This can be very simply considered to be the oil floating on an underground pool of water in the porous rock underground. Now take a straw, put it into the cream and try and remove it without sucking up any coffee. If you suck gently you might be able to get a lot of the cream up, especially if you bend the straw to run across the top of the cup. But if you suck too hard then you not only pull the coffee into the straw and can't get any more cream from that particular place, but you also mix up the cream around that point into the coffee, and you lose the chance to recover that cream later. Separating the cream from the much larger amount of coffee beneath it is not really an option.

Oil is somewhat the same, in that, if you try pulling it out of the ground too fast, you can cause changes in the flow pattern that drop the total amount you can get out from any one well, and the immediately surrounding rock, pretty severely.

So instead you drill more wells, which means you have to know where to put them, and that means also finding available drilling teams and there is a quaint rumor that with oil prices going up a lot of those folks are already busy.

Two final points - first, yes I know this is a very simple idealization that doesn't cover a lot of reservoirs, but it was meant for those who really aren't that aware yet.

Oh, and secondly, there is an alcoholic version of this example, but it would be socially highly irresponsible to encourage folk to try doing this with different layers of liquor - especially since I can't remember which which colors you have to use and which liquor you have to float on which to get them to stay separate. Maybe I ought to go and investigate?

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