



## Fast solar cars and slow oil

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Well as the solar cars race West along the Trans-Canada, travelling at the speed limit, there are a couple of struggles taking place including the leadership, that are fun to watch via [the gps link](#). It is amazing to me that I can watch the race, almost in real time, from this far away. The lead car (Michigan may have passed Minnesota) reached Regina it appears about half an hour earlier than anticipated - what was that about keeping to the speed limit?

On the oil energy front today there is a different story. Ah, peak oil.

The United States is a relatively mature part of the world in terms of having seen a lot of the immediately available oil extracted. The oil that remains comes in many cases, from stripper wells, where the flow is small, but can remain steady for many years. Oil here has to be pumped out of the ground. The LA Times has a [story](#) on such an operation today on Cano Petroleum.

Johnson laid down \$8 million for the field (in central Texas), which covers more than 10,000 acres.

Today, Johnson's company is using enhanced recovery techniques to pull 80 barrels of oil a day from Desdemona's 60 wells, or about 1.3 barrels per well. These are known as stripper wells - wells that yield less than 10 barrels of oil a day - and Desdemona is riddled with them.

"Stripper wells are huge in this country," said Jeff Eshelman, spokesman for the Independent Producers Assn. of America. "They're the equivalent of what we import from Saudi Arabia each year."

In 2003, according to the most recent data available, the nation's 393,463 stripper wells produced 313 million barrels, or about 15% of domestic, onshore oil production in the contiguous 48 states. Most of the country's stripper wells are in Texas, Oklahoma and California, with half of California's 42,000 oil wells classified as strippers. In contrast to the stripper wells' output, many larger wells that are being worked over by the likes of Chevron Corp. yield more than 100 barrels a day, according to Iraj Ershaghi, director of the Center for Interactive Smart Oilfield Technology at USC.

The article goes on to describe how the company gets the oil out of the ground using an enhanced oil recovery (EOR) technique.

Companies pump carbon dioxide, water or steam into old wells to push more oil out of the rock and up to the surface. Sophisticated computer simulations can spot caches of oil hidden inside rock that can then be accessed by drilling out from a nearby well.

Cano mostly relies on a process known as alkaline-surfactant-polymer, which is used to get the last 16%-25% of oil out of the rock.

First, the wells are flooded with water and then a soap-like chemical is pumped underground that loosens the oil molecules from the rock — like dishwashing soap prying greasy residue off a lasagna pan. Finally, the oil is separated from the water and sucked up out of the ground. Sometimes, engineers actually use an industrial-sized vacuum to pull the hard-to-get oil caches out.

Using this technique, Cano's 2,601-acre field in Nowata, Okla., is producing 77,000 barrels of fluid a day, out of which the company is pulling 250 barrels of oil daily. "This isn't thick and tarry oil," said John Lacik, Cano's production, safety, health and environmental coordinator. "It's real pretty, greenish-gold and real lightweight."

The relative amounts of oil in the fluid (around 0.3%) makes the water cut in Saudi Arabia (about 30%) that have been the subject of some of Matt Simmons comments seem almost like pure oil.

The story includes a comment that the company has yet to make a profit, and comments on the lack of experts in the area.

Technorati Tags: [peak oil](#), [oil](#)



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