

# Full steam ahead for Kern oil producers

**John Cox, Bakersfield Californian, 1-31-16**

Kern County's oil industry is facing the global petroleum glut with a full head of steam.

Rather than ease the flow amid slumping oil prices, many local producers continue to push forward with steam injection activities that keep their wells pumping at a steady clip.

Many have little choice. Slowing down production on wells that rely on steam injections is neither as easy nor as financially wise as it might seem.

Locally produced oil tends to be thick and heavy. Pulling it out of the ground often requires injecting steam to heat up a reservoir using either a continuous, multi-well process called steamflood, or a phased, well-by-well technique known as cyclic steaming.

The catch is, it takes a lot of time and money to heat up a reservoir to the point where it produces efficiently. Once the process has begun, shutting off the stem for a significant period may amount to a big loss of investment.

What's more, there's a chance halting steam can jeopardize an oil field's long-term capacity. In some cases, a well left to cool too long may never yield as many barrels as it would have if injections never stopped.

Gene Voiland, the former chief of Bakersfield-based oil producer Aera Energy LLC, said cutting off steam isn't likely to cause permanent damage to an oil field.

"But if not done properly," he wrote in an email, "the economics of the project could be severely impacted to the point you might lose reserves."

## **ADDING TO THE GLUT**

Globally, oil's downturn results primarily from an oversupply in the market amid expectations for lower demand. Oil-producing countries such as Saudi Arabia have refused to substantially curtail their shipments, partly in an effort to maintain market share, even when scaling back might help bring up prices.

Kern County, which represents roughly 1 percent of the world's oil production, probably would have little impact on global prices even if it scaled back drastically.

A big reason U.S. oil producers don't all shut in their wells at once is that it would be seen as a coordinated action — collusion and price manipulation — that could violate anti-trust laws.

But with prices so low — oil's national benchmark has fallen about 70 percent since mid-2014 — wouldn't it make more sense for individual companies to leave the barrels in the ground?

Not necessarily.

## **PUMPING TO PAY THE BILLS**

Oil companies' costs don't always decline according to their rate of production. As noted by Charlie Comfort, an executive at Taft-based TRC Operating Co. Inc., there are always bills to be paid.

“Unfortunately, a lot of expenses aren’t related to the operational side of things (fixed vs. variable), and it helps to have more barrels available to cover them,” Comfort said in an email.

This ongoing need for cash is partly why TRC recently drilled 20 new wells, and why it plans to drill 20 more soon. Comfort said the company is trying to recover from a previous production slowdown.

Part of that ongoing ramp-up of production has meant waiting and seeing how well TRC’s old wells respond to a resumption of steam work, he said.

“We are still assessing the impact and possible damage to our wells” from having cut off steam earlier, he said.

## **OBLIGATED TO PRODUCE**

Some oil producers wouldn’t be able to slow down even if they could afford it. That’s because their property lease agreements require a certain minimum level of production.

“Most leases say that you have to continue producing or you’ll lose the lease, or they have to go back and renegotiate the leases so you can extend the lease or let it shut in,” said Ken Hunter, president of Vaquero Energy.

In other cases, hesitance to stop steam injections is a matter of science.

Steamfloods and cycling steaming both inject large amounts of hot vapor deep underground to make oil less viscous and therefore easier to pump. With steamfloods in particular, reaching optimal heat and maximum production can take months.

Besides risking some future production potential, turning off the steam entirely for a sustained period amounts to throwing away a long-term investment in natural gas required to produce steam.

## **DIALING IT BACK**

That said, oil producers are often able to fine-tune their steam operations in ways that reduce heat somewhat without giving up the ability to ramp back up again quickly.

Chevron said it continually evaluates and adjusts the amount of steam it injects into local reservoirs.

“Our focus on energy efficiency aims to maximize oil production while optimizing steam injection,” it said in an email.

Another large oil producer in Kern County, California Resources Corp., downplayed any benefits it might gain from doing less steam work.

The company said its local steamfloods run at a healthy profit margin, thanks to relatively low natural gas prices, and that these operations have a long productive life. It emphasized such projects remain a “growing part” of its energy portfolio.

## **A GRADUAL COOL-DOWN**

Not all oil producers are so lucky. Some face total costs as high as \$20 per barrel, leaving only a few dollars’ profit for their effort.

Joe Nahama, president of Bakersfield's PetroRock LLC, said some local oil producers are already "dialing down" their use of steam in order to slow production.

Doing so reduces the number of barrels produced per day very gradually, he said, because the underground reservoir cools slowly. That gives producers time to react in case market prices increase.

"That's the problem, is what's the time horizon for the oil price? Is it better to shut it down?" he asked. "It depends what your crystal ball looks like for oil prices."

With the national benchmark price hovering at \$30 per barrel, and local grades selling several dollars below that, Vaquero's Hunter said the time of reckoning Nahama referred to may come soon for some local oil producers.

"I would say this is probably too soon" to cut off the steam, he said. But, he added, "if it stays at these levels, I'd say, maybe a month or two, you'll see that start to happen."