

# King probe expands in Central Valley

By Tom Rossi, Fresno Bee, 11-2-13

Along orchards and the city of Shafter, state water authorities tested suspicious fluid in an oilfield well named for the 1930s cartoon character Betty Boop

and the fluid laced with boron, salts and a cocktail of notorious chemicals related to gasoline and from hydraulic fracturing, or fracking, for oil

The Betty Boop investigation in Kern County this year is the state's first hard look at water contamination from this hotly debated form of oil extraction

The Central Valley Regional Water Quality Control Board now is investigating all operations in this part of the state where the advanced technology has been used hundreds of times over the last three years.

Hydraulic fracturing — injecting chemical-laden water into shale formations to loosen and extract oil — is not limited to California. It happens in North Dakota, Texas, Pennsylvania and other states. In California, people argue over regulation, air and water quality as well as the possibility of triggering earthquakes.

California has the potential 15.4 billion barrels — a lot of it beneath the San Joaquin Valley — of this oil. Debate here is fierce, spilling into courtrooms, the Legislature and even street demonstrations.

Tom Rossi, a lone Shafter community activist who stirred state action on water quality related to fracking in the state's highest-producing oil county.

Resident Tom Frantz last year videotaped the fluid discharge and alerted the Central Valley Regional Water Quality Control Board. The agency issued a notice of violation after investigating

the discharge. "If they get a big fine," said Frantz, a Shafter-area farmer and president of the activist group Association of Shafter Residents. "This is right in the middle of prime farmland with the city of Shafter nearby. With all the wells around here, you have to assume they've been discharging to open sumps for a while."

## Regulation, economic promise

The industry already is regulated in California, but the groundwork has begun to give the public and regulators more access to hydraulic fracturing details, state leaders say

By Tom Rossi, the state's Division of Oil, Gas and Geothermal Resources does not differentiate oil production from other types of hydraulic fracturing, such as the Marcellus shale

dangers

think California will standstill for this," said senior lawyer Kassie Siegel of the Center for Biology, which filed legal action this year. "There will be a cost to the people and natural resources here

issues have been prominent. A University of Southern California study early this year suggested California would add up to 2.8 million jobs by 2030, fueling a tax bonanza and an economic boom

California's stricter environmental regulation and geological complexity may be an obstacle to aggressive, say other economists.

at a more conservative projection, a new study by California State University, Fresno, looks only at the San Joaquin Valley, which produces 75% of California's oil

the same State study— sponsored by the oil industry — estimates fracking would add 2,151 to 195,680 jobs in the valley, emphasizing the possibility that oil companies might have trouble being as aggressive here as in other states

they might see benefits from fracking, particularly in Kern, said Fresno State economist Antonio Arce. He worked on the analysis with colleague and fellow economist David Vera. But he does not see a boom

aid: "We think an economic miracle is unlikely in the San Joaquin Valley."

### **g safety for water, ar**

It takes weeks to drill a well 8,000 feet or more into California's Monterey shale. But blasting the shale with fluid and removing oil takes only three to five days

Fracking has been going on since the late 1940s, but drilling technology has advanced to include horizontal drilling within the shale formations. The approach allows crews to drill down, then horizontally for hundreds of feet, exposing more shale for fracking

Current standards for groundwater safety include concrete casing to seal the well as it passes through aquifers and water fields. The casing is pressure tested to be sure it doesn't leak, industry leaders say

Fracking is done thousands of feet below the groundwater, says Tupper Hull of the Western States Petroleum Association, representing oil companies that produce 80% of California's oil. Nobody has found groundwater contamination from fracking, he said

"We know nothing that we don't know much about hydraulic fracturing," he said. "This is one of the most researched

roups have sprung up all over California to voice opposition. Fresnoans Against Fracking held a meeting, seeking public support for a moratorium on the practice. Gary Lasky, a local Sierra Club official, said,

"about protecting community health and our farming in the San Joaquin Valley," he said.

### **Water quality violation**

Kern County oilfields have 42,000 of the state's 54,000 active oil wells, according to the California Department of Conservation. Hundreds of new wells are drilled each year. Not all are fracking wells.

It is difficult to know how many fracking wells are drilled in Kern County, but there were more than 500 in 2012, according to FracFocus, a hydraulic fracturing chemical registry, a website where companies voluntarily list details about fracking.

Activist Frantz says there are several dozen new wells within two miles of his city, which has a population of about 17,000.

Concerned about water for people and crops, Frantz shot video of discharges at a Shafter-area well last year and posted it on YouTube and notified regional water board authorities.

The well belongs to Vintage Production California, a subsidiary of Occidental Petroleum. Vintage agreed to clean up the sump in the video was from the fracking well, according to the regional water board.

The sump was closed down before regional board staffers could test it early this year. Nearby, another fracking well offered authorities a chance to test a similar sump — Betty Boop.

The company, which declined comment, had permission to discharge only drilling muds and boring wash water to the regional board. The board issued a notice of violation July 23, identifying several chemicals in the fluid, such as benzene, a carcinogen linked to anemia, leukemia and bone marrow abnormalities.

The amount of fluid discharged into the sump was three or four barrels— 126 to 168 gallons, said Clay Frantz, assistant executive officer of the regional water board. It is not considered a big discharge of fluid.

Frantz said the board is negotiating a settlement with Vintage, and an announcement is expected soon. Penalties often include cleanup requirements, inspections, documentation and money.

Meanwhile, a broader, long-term investigation of wells drilled by 70 companies in the Valley will continue, said engineering engineer Doug Patteson of the regional board's Fresno office.