# PA Drilling Town's Water Still Fouled

MICHAEL RUBINKAM, Associated Press

DIMOCK, Pa. (AP) — Three years after residents first noticed something wrong with their drinking-water wells, tanker trucks still rumble daily through this rural northeastern Pennsylvania village where methane gas courses through the aquifer and homeowners can light their water on fire.

One of the trucks stops at Ron and Jean Carter's home and refills a 550-gallon plastic "water buffalo" container that supplies the couple with water for bathing, cleaning clothes and washing dishes. A loud hissing noise emanates from the vent stack that was connected to the Carters' water well to prevent an explosion — an indication, they say, the well is still laced with dangerous levels of methane.

Recent testing confirms that gas continues to lurk in Dimock's aquifer.

"We're very tired of it," says Jean Carter, 72. Tired of the buffalo in their yard, tired of worrying about the groundwater under their house, and tired of the fight that has consumed Dimock every day since the fall of 2008.

Like everyone else here, the Carters are eager to turn the page on the most highly publicized case of methane contamination to emerge from the early days of Pennsylvania's natural-gas drilling boom. Cabot Oil & Gas Corp., the Houston-based energy firm held responsible and fined hundreds of thousands of dollars for polluting the groundwater, is just as anxious to resume drilling in a 9-square-mile area of Dimock that has been placed off-limits to the company until it repairs the damage.

State regulators blame faulty gas wells drilled by Cabot for leaking methane into Dimock's groundwater. It was the first serious case of methane migration connected to Pennsylvania's 3-year-old drilling boom, raising fears of potential environmental harm throughout the giant Marcellus Shale gas field. Drilling critics point to Dimock as a prime example of what can and does go wrong.

Methane from gas-drilling operations has since been reported in the water supplies of several other Pennsylvania communities, forcing residents to stop using their wells and live off water buffaloes and bottled water. Though gas companies often deny responsibility for the pollution, the state has imposed more stringent well-construction standards designed to prevent stray gas from polluting groundwater.

Dimock's long quest for clean water may finally be reaching a critical stage.

After a series of false starts, Cabot, one of the largest drillers in the Marcellus, said it has met the state's Oct. 17 deadline to restore or replace Dimock's water supply, installing treatment systems in some houses that have removed the methane.

Residents who have filed suit against Cabot disagree, saying their water is still tainted and unusable. Another homeowner claims the $30,000 treatment system that Cabot put in failed to work.

Ultimately, it will fall to the Pennsylvania Department of Environmental Protection to decide whether Cabot has fulfilled its obligation to the residents, whose story was highlighted in last year's Oscar-nominated documentary "Gasland."

If regulators sign off, the company plans to resume work on a dozen gas wells in Dimock, a tiny crossroads in the heart of one of the most prolific gas-bearing regions of Pennsylvania.

And, in a move sure to infuriate the residents, it will also stop paying for water deliveries to the Carters and several others whose wells were tainted with methane and, some say, toxic chemicals.

It's not clear how DEP will respond to Cabot's bid to restart operations, but spokeswoman Katherine Gresh said the agency is not under any deadline.

"DEP will continue to require Cabot to do this work until we are satisfied that the methane migration problem has ceased, regardless of how long it takes," she said via email.

Methane is commonly found in Pennsylvania groundwater. Sources include swamps, landfills, coal mines and gas wells. It's not known to be harmful to ingest, but at high concentrations it's explosive and can lead to asphyxiation.

Despite company assurances of clean water, testing reveals that methane persists in Dimock's aquifer — though it remains to be seen whether that alone will thwart Cabot from drilling again.

A Cabot contractor who sampled the water in mid-September found a high level of gas in the enclosed space of a water well owned by Craig Sautner, who is among the plaintiffs suing Cabot. DEP test results indicate that five more homes had levels of dissolved methane that exceeded the standard set by a December 2010 agreement between DEP and Cabot — the same agreement whose conditions Cabot says it has met.

The latest results, Sautner said, prove that nothing has changed.

"I don't know why Cabot says there aren't any problems in Dimock," said Sautner, 58. "If they're going to say that our water's fine, I want them to be the first guinea pigs and drink it. Nice, big, tall glass of water."

Cabot characterized the mid-September methane spike at Sautner's house as an anomaly and said the big picture is that Dimock residents who accepted a treatment system from the company enjoy methane-free water.

"The water is clean for the families inside that area," said Cabot spokesman George

Stark.

Questions also remain about the integrity of gas wells that Cabot has already drilled.

As recently as May, DEP said nearly half of Cabot's wells in the Dimock area — 20 of 43 — continued to leak methane, including 14 that DEP said were of the "most concern." In a letter obtained by The Associated Press, a DEP official wrote to Cabot that the leaking wells indicate faulty construction and that Cabot had "yet to achieve full compliance" with DEP mandates.

Cabot disagreed with DEP's assertions about its gas wells, and has been supplying documentation to the agency showing that all the wells are safe, Stark said.

Some Dimock residents say their water wells were fouled not only with methane that DEP said migrated from improperly cemented Cabot gas wells, but possibly with toxic chemicals commonly used in the drilling process known as hydraulic fracturing or "fracking." Fracking involves the high-pressure injection of millions of gallons of water, along with sand and chemical additives, to liberate gas from shale deposits more than a mile underground.

The company denied responsibility, saying it doesn't use the chemicals that a consultant working for the plaintiffs found in the wells last year. Cabot suggested a nearby auto repair shop was to blame.

Victoria Switzer, whose water was found to contain toluene and ethylene glycol, doesn't believe Cabot's explanation.

"I want to live in this home, but I have to have drinking water," said Switzer, a 58-year-old retired schoolteacher. "I have to have water that doesn't freak me out with wondering what's in it today."

The problems in Dimock, a rural township about 20 miles south of the New York state line, first arose in the fall of 2008, a month after Cabot started drilling in the area. The water that came out of residents' faucets suddenly became cloudy, foamy and discolored. Homeowners, all of whom had leased their land to Cabot, said the water made them sick with symptoms that included vomiting, dizziness and skin rashes.

One of the water wells exploded on New Year's Day 2009, prompting a state investigation that found Cabot had allowed combustible gas to escape into the region's groundwater supplies, contaminating at least 18 residential water wells.

Cabot asserts the methane in the residents' wells is naturally occurring and denies polluting the water — with methane or anything else — even though DEP has said its tests confirmed the gas migrated from Cabot's wells.

The company has plenty of support in Dimock and the rest of Susquehanna County. Many homeowners living in the moratorium area are anxious for Cabot to start

drilling again so they can begin receiving royalties on the land they have leased to the company.

Dimock landowner and tax collector Esther Rayias, 57, part owner of a 180-acre farm that's been in her family for four generations, said she favors "safe and responsible drilling." Cabot built a pad on her farm but hasn't been able to drill.

"We don't want this land destroyed. We don't want to be ravaged. But from what we've seen, Cabot has not done any of that," said Rayias, who wrote to Pennsylvania Environmental Secretary Michael Krancer over the summer to urge him to lift the drilling ban.

After finding that Cabot failed to live up to the terms of two previous agreements to fix Cabot's water, DEP announced in September 2010 that it would force the company to pay nearly $12 million to connect the homes to a municipal water line six miles away. Residents cheered the move as a permanent solution to their problem. But opposition from Cabot and many other residents and local elected officials — who viewed the water line as a costly boondoggle that taxpayers would ultimately get stuck with — forced DEP to scuttle the plan.

Instead, DEP struck a bargain with Cabot last December under which the company would pay each of the affected residents twice the value of their homes, a total of $4.1 million, and provide a treatment system to remediate the gas.

The 11 plaintiffs who qualified for the deal — none of whom were consulted beforehand — saw it as a betrayal. None of them took the money or a treatment system, and have appealed to a state panel. "One day you're saved, the next day you're lost, and you never get any resolution," Switzer said of the scuttled water line.

A half-dozen homeowners, though, did take the money and request the systems. One couple, Michael and Suzanne Johnson, who are not among the plaintiffs suing Cabot, said recently that it didn't work.

The Johnsons wrote in late August that the system "has not fully restored the water to Primary & Secondary Drinking water standards," making the assertion in a court brief they filed that sought to quash a subpoena from the plaintiffs' attorneys.

Suzanne Johnson declined to talk about why they believe their system failed to treat the water. Test results obtained by the AP show their well water had a high level of ethylene glycol, but Cabot's Stark said the lab acknowledged it was a false positive. Tests before and after turned up no ethylene glycol in the well.

The Johnsons' well has also recorded high levels of aluminum, iron and manganese, all of which can affect the taste, smell and color of water but do not generally pose a health hazard.

Cabot's agreement with DEP, though, does not make the company liable for any chemicals or metals that have turned up in the residents' water — nor does it

require the company to treat the water for anything other than methane.

Jean Carter, who lives a few hundred feet from a pair of gas wells, said she and her husband have spent countless hours worrying about the water. (Cabot asserts their supply is fine, pointing to test results that show an insignificant level of dissolved methane in the Carters' well water.)

Recently, she said, they decided to stop stressing, or at least try to, "because we are only hurting ourselves."

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