## OFF THE SHELF | BRYAN BURROUGH

## The Birth of an Energy Boom

A look at the companies, and technological advances, that unleashed the fracking frenzy.

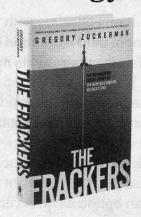
ONE COULD ARGUE that, except for the Internet, the most important technological advance of the last two decades has been hydraulic fracturing, widely known as fracking. Practically overnight, it seems, this drilling technique has produced so much oil and gas beneath American soil that we are at the brink of something once thought unattainable: true energy independence. And its repercussions, for geopolitics, the environment and other areas, are only now being grasped.

In "The Frackers," Gregory Zuckerman sets out a 25-year narrative that focuses on the half-dozen or so Texas and Oklahoma energy companies behind the fracking boom, especially Chesapeake Energy, the Oklahoma City giant that is the Exxon Mobil of fracking. Technologies are born. Gushers gush. And fortunes are made and lost.

In the process, Mr. Zuckerman assembles a chorus of little-heard American voices, from George Mitchell, the Greek goatherd's son whose company first perfected fracking, to Chesapeake's two founders, Aubrey K. McClendon and Tom L. Ward. Yet despite this, "The Frackers" doesn't quite end up being memorable music, at least not to these ears. Much of this has to do with literary shortcomings that, while relatively minor, are the difference between this being an "A-plus" book and the "B-plus" book it is.

Fracturing solid rock to free the oil trapped inside, it turns out, is nothing new. It was first tried by a Pennsylvania driller all the way back in the 1860s. Just as the Internet boom was driven by the discovery and marriage of two technologies - digitization and broadband delivery - so, too, has the new energy bonanza been driven by parallel advances in fracking and in socalled horizontal drilling — that is, wells that are drilled down into the earth and then turned sideways to reach oil- and natural-gas-bearing strata. The difference between vertical and horizontal drilling is the difference between gathering up a fistful of thrown sand with a straw versus a spatula.

What changed everything was the unleashing of these new techniques on a notoriously unyielding kind of subterranean rock called shale. Geologists knew that layers of shale spread across North America contained commercial amounts of oil and gas, but not until a young geologist at Mr. Mitchell's company, Mitchell Energy, perfected a new "secret sauce" of water-



The Frackers: The Outrageous Inside Story of the New Billionaire Wildcatters By Gregory Zuckerman, 404 pages, Portfolio/Penguin

based fracturing liquids in the early 1990s did layers of shale — in Mitchell's case, the Barnett Shale of North Texas — melt away and begin to yield jaw-dropping gushers.

Oryx Energy, a company that was based in Dallas, was among the first to pair fracking with horizontal drilling, producing even more startling results. Still, it took years, Mr. Zuckerman writes, before larger businesses, especially the skeptical major oil companies, fathomed what their smaller rivals had achieved. This allowed what were flyspeck outfits like Chesapeake to lease vast acreage in shale-rich areas, from Montana to eastern Pennsylvania.

Mr. Zuckerman is a reporter for The Wall Street Journal who had a well-received first book, "The Greatest Trade Ever," about the wildly lucrative bet of the hedge fund manager John Paulson against the housing market. "The Frackers," his second book, is told with care and precision and a deep understanding of finance and corporate politics as well as oil and geology. Any criticisms I have of it are akin to those aimed at a .290 hitter who ought to be hitting .335. That said, too much of the "The Frackers" reads like a very long Wall Street Journal article.

A BOOK, UNLIKE a newspaper article, has more room to make people and places come alive, and this is the biggest disappointment of "The Frackers." I read a hundred pages about Mitchell Energy, but I couldn't tell you what its headquarters looked like. Neither of Chesapeake's founders, Mr. McClendon or Mr. Ward, springs off the page, either. The book is littered with characters whose physical appearances are described in a phrase or two at best.

Throughout, Mr. Zuckerman maintains a laserlike focus on the fracking companies and their top executives. This results in what I call conference-room history; I can't remember a single scene set around an actual well, or even a single description of one.

Tangents repeatedly, and strangely, slither into corners of executives' personal lives. And the author doesn't spend much time examining the potential environmental impacts of fracking, which are relegated to the end of the book. What he says is dismissive, and should be explored further.

Mr. Zuckerman may have yet to find his true voice, but his book is nonetheless a cut above others of its type. "The Frackers" is a good, solid read for anyone interested in fracking or the oil and natural gas industry. And for all my reviewer-ish carping, I'll be among the first to buy his next offering.