
1. AN AGENT OF DREAMS

Ron and Jeannie Carter were in their late sixties and on a fixed income when the landman parked his luxury sedan in front of their trailer home. He wore a cowboy hat, boots, and an oversized buckle on his belt. He was not a big man, but striding confidently up to the drive, he cut a striking figure; and he brought uncommon news: Cabot Oil and Gas—a company from Houston, Texas—was interested in leasing the Carters’ land for natural gas exploration.

The year was 2006. In the Endless Mountains of northern Pennsylvania, where the Carters lived, visits from landmen were rare but not unheard of. Some property owners from previous generations had signed over mineral rights to land speculators for between \$1 and \$5 per acre, with little ever coming of it but a modest check and a little paperwork. The proposal this landman brought might also amount to nothing—or the 75-acre ancestral homestead could be sitting right on top of a source of income for Ron and future generations. Cabot was not a speculator but a fully capitalized drilling company, the landman explained. His name was James Underwood, and he quickly impressed Ron as experienced in these matters. The \$25 per acre that Mr. Underwood was offering was far better than offers Ron’s father had once entertained. It would be almost enough to cover the Carters’ tax bill, even if nothing more came of it. If Cabot struck gas, the Carters would be guaranteed a piece of the action: 12.5 percent. That was in black and white

on the lease Mr. Underwood brought. The way gas prices just kept on rising, that could amount to something.

Jeannie Carter, Ron's wife of fifty years, was decidedly against the idea. If the landman didn't immediately know this, he would soon learn that she required some convincing. Forty-five minutes into his introductory visit, when it was clear the Carters were not going to sign anything that afternoon, the landman announced he had taken enough of their time. He knew they would want to think about it, and he surely understood that. But they had better not wait too long, he added—and here Ron sensed genuine indifference in his voice. The neighbors were signing up, the landman told them; and with due respect, Cabot didn't need the Carters to move forward with its plans.

Drilling companies based in the south, like Cabot, were among the first to sense opportunity in Marcellus Shale Formation underlying Appalachia in the first decade of the twenty-first century. These companies sent agents to acquire rights to the land; and they started with promising territories that could be leased cheaply. That brought them to Susquehanna County in the heart of the Endless Mountains.

When viewed heading north on Interstate 81 toward the New York state border, the Endless Mountains live up to their name. With each crest in the road, the northern Appalachian terrain appears and reappears, flowing in waves and channels to the horizon. The New Milford exit—one of the last before New York—drops into a place that could also be called the Timeless Mountains. Away from the traffic and commerce of the interstate, the northeastern Pennsylvania landscape appears essentially as it did a generation ago—farms and fields, agricultural supply and general stores, lunch counters and gas marts, and the occasional horse-drawn buggy venturing from one of the Amish settlements tucked away in the Susquehanna River Valley. Heading west, County Route 706 wanders over hill and dale before settling down in Montrose, a village of 1,660 residents and the seat of Susquehanna County. Here, roads merge into the village center, with a public green and a Greek revival courthouse facing a boulevard with broad sidewalks, period streetlamps, and tidy storefronts.

From this hub, Route 29 runs out of the village to the south, passing through Dimock Township and connecting with town roads meandering through forested hollows. Homesteads and trailers of generations of farmhands, quarry workers, and lumberjacks are mixed with nineteenth-century

farmhouses and contemporary homes of artisans and organic farmers—newcomers pursuing ambitions of gentrified country living. Dry-laid stone-walls from settlement times mark boundaries. Some have buckled with time and exposure to the elements, swallowed by wild rose and elderberry bushes. Others, perhaps built by better craftsmen or restored by capable hands, remain plumb and square, at least for another generation. A section of this kind of sturdy wall ends in front of Ron and Jeannie Carter's home.

It's a neat white trailer with brown shutters, sitting on the edge of a woodlot. Facing away from the woods, a canopied front porch, furnished with deck chairs, wind chimes, and hanging flower baskets overlooks an expanse of fallow field. This is where Ron reads Tom Clancy and Clive Cussler on summer days as hummingbirds and finches flit about feeders. He wears a cap tipped back on his head, exposing a face with earnest features, a small mustache, and sturdy metal glasses. Jeannie often sits with him doing crossword puzzles. It had always been a quiet place, but that changed after 2007. Following the landman's visits, the unpaved and seldom-traveled road visible from the porch became a primary route for caravans of heavy equipment. Subsequent events drew people from far and wide: reporters from network television, national magazines, and newspapers; filmmakers; environmental advocates; politicians; and celebrity elites such as Robert F. Kennedy Jr.

I met the Carters while covering natural gas development in New York and Pennsylvania for Gannett's Central New York Newspaper Group. Their homestead was at the center of a rush to develop the Marcellus Shale—soon to be touted as the mother lode of domestic energy reserves and emblematic of a conflict over shale gas development that was taking shape across the county. On the surface, this was a story about ecology versus the economy, land use conflicts and policy, and the heady prospects of unheard of sums of money changing hands. These themes were compelling enough and easy for the mainstream media to grasp. But people soon sensed that the significance of events ran deeper. The energy future of the nation, global warming, energy independence, and ecological sustainability—these were the larger issues of the day, and they were integral to the Marcellus story unfolding in out-of-the-way places such as Dimock.

The Marcellus, a mile underground and stretching from southern New York through Pennsylvania and parts of West Virginia and Ohio, is a black shale formation long known to hold an abundance of natural gas. That gas was essentially worthless, trapped in rock with no effective way to extract it using conventional drilling methods. The formation was a vault with no key;

and prior to the time I met the Carters, it was noteworthy only because of the technical challenges it posed to those drilling through it to reach proven gas-bearing formations deeper in the earth. The best known of these were the Oriskany Sandstone and the Trenton Black River Limestone. For years, drilling companies able to pinpoint porous, geographically sporadic pockets in these formations—mostly in parts of western New York, Pennsylvania and West Virginia—were rewarded with prolific and free-flowing production.

When landmen came calling to secure rights to property in Dimock in 2006, few people outside the industry had heard of the Marcellus. Residents had no way of knowing its worth to energy companies, which, with a series of breakthroughs pioneered in Texas, had found a key not only to the Marcellus vault but to black shale reserves worldwide. The discovery—involving a process that uses hydraulically applied force to shatter rock and free gas deep in the earth—held the potential to dramatically alter the lives of Dimock residents and change the global dynamics of energy production and consumption. By spring 2008, people living over the Marcellus from the Finger Lakes to the Ohio River Valley began catching on as Underwood and his colleagues made their rounds.

Newspaper reporting offered a front row seat from which to track daily developments in both states. I drove from upstate New York south through the Endless Mountains, where I met the Carters and other residents of Dimock, including Victoria Switzer, Norma Fiorentino, and Don Lockhart. The story of the Marcellus begins here, in the rural reaches of northeastern Pennsylvania, long before most people knew anything of shale gas or of hydraulic fracturing.

A HISTORY OF EXTRACTION

Carter Road is named after the Carters because they were the oldest family living there when the 911 emergency system was installed late in the last century. It's where beauty and utility have coexisted, not without tension, for generations. Primeval forests of hemlock, pine, maple, and beech were logged to exhaustion throughout northern Pennsylvania well before the Carter family arrived. By the early 1900s, a rush on resources had advanced with little technical or scientific experience, government oversight, or planning. Timber was a versatile and seemingly limitless resource for heating, building, burning, and tanning. Hillsides were stripped bare as industry took hold during the nineteenth century.

The trees provided timber for a vast network of mineshafts for a booming anthracite coal mining industry concentrated in five counties of northeastern Pennsylvania, including Susquehanna County. Just prior to World War I, the industry—extending south from the northern border of Lackawanna County through Dauphin County—employed 181,000 mine workers and led the growth, capitalization, and vitality of the region. The coal extracted in abundance from this region provided cheap, efficient fuel for factories, forging works, and homes. Railroads were built, canals dug, and an entire economic infrastructure was built on the back of the northeastern Pennsylvanian coal industry.

Economic success was accompanied by historic measures of calamity. Between 1869 and 1999, more than 31,100 miners died on the job in the anthracite region. Workplace safety improved over time, yet injury and fatality in the coal industry remain hazards to both workers and residents. Waste from mine shafts still fouls rivers and tributaries. The earth beneath entire communities spews fumes from inextinguishable fires. One of the most famous examples is found in the town of Centralia, once a vibrant borough with more than 2,000 residents in the southern part of the anthracite region. It was abandoned and condemned after an underground coal fire began spreading in 1962. The fire still burns today, and only a handful of people stubbornly hold on to their homes in what has become a ghost town.

Another disaster, less than 40 miles south of Dimock, accelerated the demise of the anthracite coal industry and highlighted the costs of resource extraction. The Knox Mining Company disregarded orders by the state Department of Mines to shut down an anthracite mine carving out a vein under the Susquehanna River in Port Griffith. Work continued even after an inspector found that the company was violating rules that prohibited mining within 35 feet of the bottom of a riverbed. On January 22, 1959, the river fell through the roof of the mine. A massive vortex formed over the hole as 10 billion gallons of water drained from the river and filled the interconnecting network of shafts below the Wyoming Valley. Twelve miners died, and mine operations were halted in the valley.

A few hundred miles to the west, in the Allegheny region of Pennsylvania, oil and gas drilling witnessed a similar pattern of prosperity followed by neglect and decay. It began in 1859 with the pioneering venture of Edward L. Drake, a retired railway man hired by investors of the Pennsylvania Rock Oil Company to explore ways to extract oil, which had limited but growing value at the time. Drake was the first to employ drilling machinery to produce

petroleum from wells rather than experimenting with other methods then in vogue (and proven ineffective) to collect it from surface seeps common in the area. His success in developing the first U.S. wells in the Titusville region sparked a rush of capital and workers to the region that marked the birth of the modern petroleum industry. For the next three decades, tens of thousands of wells—some clustered a dozen feet from one another—would be the hallmark of these boom towns. Coupled with advances in production and refinement as well as growth in applications for light, heat, manufacturing, and transportation, these Allegheny wells laid the foundation for a fossil-fuel-based economy in a country then largely dependent on whale oil.

The petroleum boom in the Allegheny region brought untold wealth to some investors and speculators, and gainful employment to teamsters, rough-necks, and laborers. When it was over, it left abandoned towns and memories of environmental degradation and human loss. A series of spectacular oil fires devastated entire communities in the Allegheny region before the boom ended in the last part of the nineteenth century. The worst was on June 5, 1892, when petroleum tanks overturned in a flood, causing an inferno along Oil Creek. According to an account in the *New York Times*, “an explosion was heard up the stream, which was rapidly followed by two others, and quick as a flash of lightning the creek for a distance of two miles was filled with an awful mass of roaring flames and billows of smoke that rolled high above the creek and river hills.” The fire raged for days from Titusville to Oil City and killed scores of men, women, and children.

Petroleum speculators began leaving western Pennsylvania to seek oil first in Ohio, and then after the turn of the century in Texas and Oklahoma, where oil fields were proving more productive than those of Pennsylvania. Electricity had begun displacing oil and kerosene as a preferred source of light, and automobile production had yet to begin driving the demand for oil exploration. It was about that time that Ron Carter’s family legacy began in Dimock, just north of the still-bustling anthracite coal mines. By the 1920s, the virgin landscape once occupied by the Delaware and, later, Iroquois Indians was long gone, but the land was beginning to heal from decades of logging and was developing a rustic beauty that is at the base of its character today. From their porch, Jeannie can see three massive hickory trees that, like the stone walls flanking the property, offer a tangible link to an earlier time. She vividly remembers being fifteen years old and picnicking with Ron under those trees the year they met during an outing organized by Ron’s parents and other members of the Dimock Baptist Church.

At that time, Ron's family owned close to 200 acres. Ron was born and raised in a gabled, four-bedroom farmhouse perched beyond the hickory trees and across the field from Ron and Jeannie's current home. In the 1940s, Ron was a young boy, and his parents and grandparents were able to coax enough of a living from the land to comfortably support an extended family. His father, Ray Carter, tended the animals—cows, pigs, and chickens—and his grandfather, George Brown, logged and sold timber that provided infrastructure for coal-mine shafts being dug to the south of Dimock. In the house where Ron grew up, trips to the grocery store were infrequent. The family occasionally slaughtered a pig and a cow in the barn, and slabs of smoked and salted pork hung on the porch through the winter. The cellar was full of potatoes, canned fruit, produce, and bulk provisions for baking and cooking. The family made enough profit to buy the things they needed, and by today's standards, they didn't need much.

One thing they could not do without, however, was water. Crops and livestock need plenty, and in Dimock wells and streams are fed by one of the greatest freshwater circulatory systems in the country. Burdick Creek, where Ron fished as a boy, runs through the hollow to the west of Carter Road before connecting with Meshoppen Creek, which feeds the Susquehanna River. The Susquehanna River watershed and the overlapping Delaware River watershed to the east are the heart of a network of streams, ponds, lakes, wetlands, and rivers encompassing 41,000 square miles in parts of New York, Pennsylvania, New Jersey, and Maryland. In addition to sustaining a thriving ecosystem, the watersheds provide drinking water to millions of people (including residents in New York City) and support industries and commerce throughout the Northeast and mid-Atlantic.

The life that Ron knew as a young boy had begun to change by the time he was a teenager. The post-World War II economy grew with unprecedented levels of production and consumption. America's ever-growing demand for inexpensive commodities and processed food could be met more efficiently and profitably by production from other parts of the country and the world. New industry rose based on economies of scale, capital interests, mechanization, and cheap labor. Across the United States, agricultural practices changed accordingly, and those changes did not favor Appalachian family farms.

Lacking a single iconic attraction such as the Adirondack High Peaks, the clear and deep waters of the Finger Lakes, or the resorts of the Poconos, the Endless Mountains of the northern Appalachian countryside was largely

forsaken by the tourism that came to the aid of other communities after World War II. Dreams here, from settlement times, were made from raw beauty difficult to measure yet easy to squander—timber, agricultural product, minerals, and stone valued in board feet, BTUs, and raw tonnage. This and hard labor fueled the industrial revolution and wartime economic booms. By the early 2000s, such dreams had largely played out, leaving a poverty rate greater than 12 percent and an economic void waiting to be filled.

Long before the arrival of the twenty-first century, it was common for those of Ron's generation to leave the farm after high school to pursue new dreams elsewhere. In 1957, Ron moved to Johnson City in the Southern Tier of New York, about 30 miles northwest of the family farm. Although technically a village then, it was growing into a bustling manufacturing hub, with the Endicott Johnson shoe empire still thriving and a promising information technology company called IBM expanding quickly. That same year, he married Jeannie, who had left her family farm in neighboring Brooklyn Township to work as a secretary in Endicott. Like the family farm, the Endicott Johnson operation soon fell amid shifting economic pressures involving free-market demand for more with less. In this case, shoes could be produced far more cheaply overseas. Ron and Jeannie and their three sons then moved back to the Carter homestead, and Ron found sporadic work at Bendix in South Montrose and, later, a steady job at Procter and Gamble near Scranton. He worked at Procter and Gamble for twenty years making disposable diapers until a heart attack forced him from the job before he became eligible for retirement benefits.

Ron tells me his family story matter-of-factly in a deep, slow voice, pausing to gather his thoughts now and then, and conveying his feelings through quick, forceful hand gestures. Jeannie mostly listens, but chimes in with details Ron may have forgotten. The heart attack, she offers, "made other things seem not so important."

Her husband calls her Jeannie or, sometimes, when not addressing her directly, "The Wife." She's a slight woman, with a sweet voice belying a formidable strength and a farmer's firmness with animals. She snags Brandee, the family's excitable terrier that likes to jump on visitors. The dog struggles unsuccessfully in her arms as she settles back into her chair.

Jeannie worked at various jobs over the years ranging from factory work at Allied Signal (formerly Bendix) to a greeter at Walmart in Tunkhannock after Allied Signal closed. She and Ron supplemented their income, eventually paying off the mortgage of their upgraded trailer home, by selling off

pieces of the homestead (including the farmhouse where Ron grew up). The real estate market in northeastern Pennsylvania was generally too remote to attract the developers of subdivisions, which tend to drive up prices of rural land situated near urban areas. In Dimock, the relatively low demand, low prices, and low cost of living attracted other kinds of buyers: those seeking acreage for wood lots, a country home, or perhaps a cheap alternative or supplement to long-term market investments.

In addition to using the real estate money to pay off debts, the Carters invested in machinery for a small quarry on the remaining land. Two of the Carter boys lived separately on the homestead, and both of them were in the stone business. Even as making a livelihood from coal, petroleum, and farming became a thing of the past, stone remained a significant industry in northeastern Pennsylvania. An abundant endowment of bluestone, coveted for upscale building projects, lies just under the surface of many fields and wood lots in this area, and it commands a good price when the building market is on. The old fieldstone walls also fetch a price on suburban markets; and it's not uncommon for farmers to sell their stone walls to out-of-town buyers, who have them trucked off and reassembled in affluent neighborhoods in New York and New Jersey.

But the bluestone market was flat, and Ron and Jeannie were down to 75 acres when the landman arrived.

THE LANDMEN

While gas reserves were found and produced to the west in New York and Pennsylvania throughout the twentieth century, prospecting to the east remained sporadic, low-key, and highly speculative. Breakthroughs in shale gas development changed that—by 2007, thousands of landmen were competing for rights to land over the Marcellus on both sides of the Pennsylvania–New York border. Many of them worked for national and multinational gas companies based in Texas and Oklahoma, including Cabot, Chief Oil and Gas, Range Resources, and Chesapeake Energy.

One of them was James Underwood, the landman who had approached the Carters. While I was researching developments in Dimock, I phoned him to arrange an interview. I wanted to ask him about his travels throughout the country, and his encounters with people in northeastern Pennsylvania. I was especially interested in what he told residents about the newly exploitable resource to which gas companies were seeking title. He had been living out of

a hotel room at the Holiday Inn Express, he told me. Ron and Jeannie Carter remembered that, in addition to his sedan, Underwood had a large pickup and a camper from which he sometimes worked. As I tried to arrange a place and time to meet, he became chronically unavailable.

The other name that often came up in my interviews with landowners was Frank Fletcher. Like Underwood, Fletcher dressed and talked like a cowboy, and he left a distinct impression on those he met. “He looked like a big Texan. He dressed real nice, real flashy, and wore gold,” said Julie Sautner, one of the Carters’ neighbors. She and her husband, Craig, signed their mineral rights over immediately after hearing Fletcher’s pitch. In my phone interview with him, Fletcher fit their description. He was charming and polite, with an engaging southern drawl and a cowboyish manner. He was born in Massachusetts and had lived in Los Angeles, although, as he told me, he may have picked up his accent from having worked for decades in Texas and Oklahoma. We arranged to meet at the Flying J truck stop in New Milford. I was to look for the man in the cowboy hat, headgear that was increasingly in vogue throughout Susquehanna County. On the day we were to meet, I called Frank to tell him I was finishing an interview in Dimock and I was on my way. He informed me that he regretfully had to pass, “at least for now,” after Cabot officials told him not to do the interview if he wanted to continue to work for them. “Sorry for having to back off, but I guess you understand,” he said. “I hope you’re at least sympathetic to our side of the story.”

I was certainly curious. The business of Fletcher and his colleagues was integral to events unfolding in Susquehanna County.

Fletcher and Underwood are part of a brotherhood of peddlers better known in oil-rich communities in the Midwest and South than in the Northeast. But their approach and style fit well into the farm culture of any rural U.S. community. They’re throwbacks to the day when door-to-door was a common way for men to do business and deals were made at the kitchen table rather than in law offices. They are versed in land-use and farming matters, and the types of things that landowners worry about: taxes, weather, crop yields, animal stock, and the art of extracting wealth from the land. They are charismatic enough to show up on people’s doorsteps and gain access to their homes. Often they are invited in. If they aren’t, they are persistent enough to prevail, sooner or later.

Understanding the risks and rewards inherent in a deal is essential to any negotiation. Here the gas companies had the clear advantage. They were privy to data collected from beneath residents’ land: seismic studies and

geological surveys supporting the growing body of industry knowledge suggesting the Marcellus was the richest domestic energy source in the country. Northeastern Pennsylvania and southern New York straddled one of the most promising sections. Few residents of Dimock had any idea of that, and none of them had access to the detailed scientific data.

Gas prospecting brought another interested party to the region in spring 2006—Jackie Root, a farmer and self-taught lease negotiator from Tioga County, Pennsylvania. After having some success organizing residents to deal collectively with companies in Jackson, about 70 miles west of Dimock, she was recruited by the Penn State Cooperative Extension to help advise people dealing with offers from landmen. She likened dealing with landmen to “a poker game where they get to see your cards but you don’t get to see theirs.” Mostly, people trusted landmen because they had high hopes and little experience in such matters, she told me. It’s natural to believe somebody “with a charming southern accent that looks like your grandfather,” she said, especially when that person conveys enticing information about your land and “looks like he knows what he is talking about.” It’s hard to know what to believe, she added, because along with good, honest landmen there are some known to tell “untruths.”

There was a way around the risks of this game, and it involved establishing solidarity with neighbors. Large tracts of contiguous land owned by multiple individuals were made even more attractive if their mineral leases could be dealt all together, eliminating patchwork acquisitions. Both owners and lessees could benefit from this, Root thought. This was especially effective when landowners were knowledgeable about the resources they possessed and united in their commitment to hold out to command the best price. During a gas rush spurred by a proven resource, it was an especially good way to deal with big companies with deep pockets. On the other hand, when speculation was high and interest was low—as it had been for years in Susquehanna County—there was little incentive for prospectors to play a game in which the rules were established by a collection of holdouts.

In 2006, before things had developed very far in Dimock, Root was one of the featured speakers at a meeting coordinated by the Penn State Cooperative Extension in Montrose. Not wishing to alienate the industry, she invited Fletcher to participate in the spirit of public education. “He told them ‘we’ll pay \$25 an acre and never a nickel more,’” Root later recalled about that meeting. “I think Frank was very threatened by what we offered.” Perhaps he was, but for various reasons Root’s organizational efforts never

took hold in Dimock. She thinks this was because the Marcellus phenomenon was too new and too little was publicly known about the value of mineral rights prior to 2008. It's easy to point to the ignorance of others in hindsight, she explained, when you've already read in the papers and seen on television that Marcellus leases are going for \$4,000 per acre. But it didn't happen that way for residents of Dimock, which was in effect the prospecting frontier of the shale gas age. "It wasn't because they were less intelligent than anybody else. It's because others were able to learn from their experiences."

On their own, some Dimock residents fared better than others in negotiating their leases in those early days, and each had his or her landman story. The time was ripe to be sold on anything billed as a new opportunity, and a lot of landowners in Susquehanna County were buying. Pat Farnelli, who lives in the Carters' old farmhouse with six of her eight children and her husband, remembers the day a stranger showed up in a large white sedan. He reminded her of the Marlboro Man. He didn't promise riches, exactly, but his very presence suggested the possibility. "It was like he was offering a lottery ticket," she said. "He made it sound like the chances weren't that great, but we had nothing to lose and everything to gain."

Pat, in her mid-thirties, is apple-cheeked and talkative, with spectacles and straight brown hair spilling about her shoulders. She and her husband Martin had bought the Carters' old farmhouse along with a 25-acre tract with the dream of farming it. Things were not going well when the landman appeared. Bills were mounting. Work to generate outside income to support the farm was scarce and growing scarcer. The family was surviving, sort of, on Pat's monthly Social Security checks, food stamps, and her husband's income as a part-time cook at the Flying J diner and truck stop by Interstate 81. The \$25 per acre in lease money, to be paid up front, would just about cover a shortfall for the mortgage.

NO WAY OF KNOWING

Many of Pat's neighbors also could use the money, some desperately. Gossip about the landmen's visits spread. At lunch counters, grocers, churches, schools, the post office, and barber shops, the residents of Dimock swapped stories. Who signed and who didn't, and for how much—this all soon became public knowledge. "Basically, everybody was talking about this all the time," Pat said. "This became a constant conversation."

That conversation began every morning at 5 a.m. when regulars started arriving at Lockhart's lunch counter in South Montrose and shared news of their neighbors, their animals, and their neighbors' animals over coffee, hash browns, and eggs. Don Lockhart, a short, gregarious man with a barrel chest and thick glasses, has held court in the small market, gas station, and diner for twenty-five years, and the establishment's appearance has changed little in that time. Patrons sit on round stools with fluted chrome bases fixed to the linoleum-tiled floor in front of a faux wood-laminated counter. A hall opening near the far end of the lunch counter leads to the office of Shirley Lockhart, town notary (and Don's wife). She works from a large steel desk amid bureaucratic certificates, notices, stacks of licensing information, and photos of children and great-grandchildren. This is where landmen and landowners go to get their contracts notarized. There is little that happens in Dimock that the Lockharts don't know about.

Underwood and Fletcher began showing up with residents at Shirley's office in 2006. By the middle of 2008, the ability of these and other landmen to close deals was keeping Shirley very busy. "People were excited," Don recalled years later. "Everybody was very positive about it." He himself was among the first to sign—for \$25 per acre. "I'm not bitter about it," he continued. "They were just good salesmen." He remained bullish on the gas rush—a boon for his and Shirley's business. Drilling rigs and equipment require plenty of fuel and licensing paperwork. The men who operate them are not delicate eaters, either.

The sheer number of landmen preceding these crews, and their doggedness in both New York and Pennsylvania, was a sign of something monumental. Everyone at Lockhart's sensed that, and excitement went beyond the lunch counter. The landmen also carried bits of news and gossip from one household to the next. They leveraged information and speculation—who had signed, what their neighbors thought, and what the future held—to suit their pitch. Not everybody was willing to accept Don's characterization that this was simply good salesmanship. Stories of questionable practices circulated. As events unfolded, some of these stories became allegations at the root of legal claims that the industry unfairly and illegally exploited residents on both sides of the state border.

In New York, the attorney general's office is free to pursue complaints of its choosing, based on their merits and, perhaps, the recognition of their potential for publicity. That may or may not have been the case when Andrew Cuomo, the New York attorney general when the land rush began,

characterized industry tactics as misleading, bullying, and deceptive. “Many of these companies used their size and extensive resources to manipulate individual property owners,” he said in November 2009. “This land grab must stop.” His scolding followed an investigation by his office into the methods used by Fortuna Energy to claim property from more than three hundred landowners in southern New York. Fortuna (which later became Talisman) agreed to relinquish its claims to the property and pay the state \$192,500. The problems were not isolated to Fortuna or any one company, Cuomo said. They were industry-wide, and his office was continuing to investigate problems and seek reforms.

In Pennsylvania, contract disputes between private parties, including those involving land leases, fall outside the jurisdiction of the attorney general’s office. Landman disputes are thus left to civil courts, which tend to operate outside the political limelight. Residents from fifteen households in the Carter Road area ended up taking their landman complaints to Pennsylvania’s U.S. middle district court in 2009, where they sued Cabot on several grounds, including “fraudulent misrepresentation” by landmen who “misstated material facts and omitted other material facts” to get residents to sign leases. The material facts in question related to the “amount, timing, and regularity” of royalties and “risks . . . to persons and property.”

Cabot officials, in a prepared statement to the media after the suit was filed in November 2009, dismissed the claims as baseless. “While we respect the right of any resident to seek a judicial solution for a legitimate issue, we see no merit in these claims and are disappointed that these citizens felt it necessary to proceed in this fashion,” stated Dan O. Dinges, chairman, president, and CEO of Cabot.

Industry representatives did not deny problems in the region, however. Some were related to training and experience, said John Holko, secretary for the Independent Oil and Gas Association of New York State. Staffing up to tackle a play the size of the Marcellus was no small matter. Even after experienced veterans were transferred from industry strongholds in Texas and Oklahoma, there were a lot of doors to knock on and relatively few available people with the necessary set of qualifications to solicit mineral deals. “The problem we have now is manpower,” Holko said in 2008 when prospecting began accelerating in New York. “Some are uneducated. Some are less experienced. There is a learning curve.” Robin Forte, executive vice president of the American Association of Professional Landmen, characterized questionable ethics as the exception rather than the rule among thousands of landmen

working across Appalachia during the early stages of the Marcellus rush. As with any industry, some are better than others, and there may be occasional scoundrels, he told me. “I don’t want to minimize that some of the people may have been subject to unethical treatment. We are concerned about it.”

Residents and advocates turned to the legal system to settle claims; however, it didn’t require a lawsuit to show that many property owners felt taken by the landmen. Based on residents’ accounts, the pitch varied from household to household. It’s hard to know exactly what was said without a tangible record. Yet, as I listened to story after story, themes emerged. A common thread involved pressure tactics. People who didn’t sign were made to feel like they would be cut out of the deal or were holding up the good fortune of their neighbors. The time was always now, and the terms would never get better. “They made it sound like everybody else was against you,” Pat Farnelli said. The other theme was betrayal. “We were all lied to and misled,” said Julie Sautner, who signed with her husband Craig for \$2,500 per acre. “I wish we knew then what I know now. But how could we?”

In 2007 they couldn’t have known. But things might have turned out differently for them had the landman’s pitch disclosed a bit of critical information known to everyone in the industry: the residents of Dimock were living on top of billions of dollars’ worth of natural gas locked in a formation that posed a set of technical problems that the industry and regulators had little or no experience dealing with. Mistakes were inevitable, and they sometimes would come at the expense of landowners.

Forgoing this disclaimer, landmen successfully persuaded Dimock landowners to “partner” with Cabot to reap the good fortune they were sitting on. Still, some residents were less interested than others in what the landmen had to say, and others were downright skeptical about the whole venture. “I don’t believe we want to do this. I don’t believe we want to do this at all,” Jeannie Carter insisted. She remembers uttering those words on the phone to Jim Underwood’s wife, who had been relentlessly trying to convince Jean that she was sure to miss an opportunity if she and Ron didn’t act soon. Ron deferred to his wife of fifty years, although he was more open to the idea. He knew his father had considered, and declined, leasing mineral rights to speculators never intending to drill but hoping to sell the leases at a huge profit in areas that might someday pan out. At \$1 per acre, it was a cheap gamble. This was different. At \$25 per acre, Cabot looked to be serious about drilling; and the real money was in the royalties—residents were told this so many times that it became ingrained in their minds. Life on a fixed income would

become a whole lot easier with monthly royalty payments. Real figures were elusive, but they always seemed to be enough for a new house and a comfortable retirement. Ron and Jeannie could take the trip to Vestal, New York, more frequently to eat at the Texas Road House, one of Ron's favorite places. When the royalty checks began flowing in, they might be able to afford to build a bigger home across the road, with a basement and room to accommodate their extended family of eighteen for family gatherings. In late 2006, the Carters finally agreed. "I asked the landman, if we didn't sign, what would happen," Ron said. "He told us, they would take the gas out anyway."

The Farnellis were told the same thing, Pat recalled. "It came at a time when we really needed it." The 12.5 percent royalty figure seemed reasonable. It was certainly tangible. It indicated a return directly proportional to the yield. Any farmer could appreciate that. Only with time and experience did they learn that it was, in fact, the minimum allowed by the state. Beyond that, prospective returns were an abstraction, subject to mathematical and legal interpretation and faith that companies would be able to accurately meter the flow of gas through rock fractures and the complex geology a mile below the surface.

A MODEL OF ENDURANCE

The landman who braved a wary Labrador retriever at a homestead near the Carters' land found a woman quite receptive to his proposal. Norma Fiorentino lived off and on with various children, step-children, grandchildren, and great-grandchildren on a modest homestead on State Route 2024, where it joins the north end of Carter Road. Her late husband had been a union plumber from New York City, and some of her boys are quarry workers. She worked for decades as an elder-care nurse and home health aide, even after disabling blows from a stroke, heart attack, and complications from diabetes. Physically demanding work seemed to be her calling. Some of her earliest memories are of helping stack rock fragments on pallets in the family quarry in Brooklyn, the town east of Dimock. "It kept us out of my dad's hair," she said, sharing details of her family history with me during a visit.

We sat in her family room, which was adorned with memorabilia, framed photos, and some of Norma's needlework. With limited mobility, she sat on the sofa next to her telephone and piles of bills, receipts, and various pieces of paperwork on a coffee table that doubles as a desk. The couch faces the side door, which opens on to the end of the driveway, offering a vantage point to

track daily comings and goings—mostly of her kids and grandchildren and the occasional neighbor or in-law dropping by. Everybody knows Norma. She grew up in Susquehanna County, raised children with her contemporaries, and cared for many of their parents as they aged and their health failed. By the time I first visited in 2009, she had also become something of a public figure outside of Dimock, due to events she never could have anticipated.

The quarry of her youth was a place of hazards and great adventure, and the centerpiece of family life. On blistering July afternoons, Norma, her siblings, and their friends plunged into the cool green depths of quarry lakes. They climbed on the warm rocks to drip dry and then dig into paper bags to find peanut butter sandwiches. One day, her mother pulled up with a carload of kids and a picnic for her father and the workers. They were intercepted by her father, running and flailing his arms. They had pulled into a blasting zone. The charge didn't detonate, but the vision of her father rushing toward the family in desperation and urgency stayed with Norma.

On a winter day in 1970, she met her husband Joseph—a master plumber and handyman who had moved from New York City to manage a farm in Brooklyn Township—when he came to fix her furnace. They later married and settled on 3 acres of uneven pasture in Dimock. The centerpiece of the property is a doublewide that Joe artfully converted into a bungalow with a cinder-block chimney and pitched tin roof extending over a front porch. Two trailers on adjoining lots have housed various family members over the years. When Joe was alive, miniature ponies grazed in pastures between Norma's house and the trailers. By the time of my visits, the pasture had become mostly overgrown. Joe, Norma told me, was most happy when he was busy, making broken things useful again, tending the animals, or helping his boys in the quarry—where he held the positions of both “go-for” and senior advisor. He worked until he died of a heart attack in the kitchen one morning while getting ready to help his sons in the quarry. He was seventy-five. Younger than Joe by a decade, Norma continued her nursing work despite her grief and even as her own health began to fail.

When the landman came calling in late 2007, she had sold the five ponies and the house was falling into disrepair. A daughter was fighting terminal cancer. A son, struggling with drug addiction, would eventually land in prison. She was fresh with grief from the loss of her husband and coping with her own uncertain health. Yet she held the family together, running the homestead and often helping out with her six children's children and their children. Her dream was a new camper in which to spend summer vacations

with her grandchildren or a small cottage on nearby Elk Lake. The man—who came to her door with good news and a raft of papers detailing lease money and royalty payments—could have been an agent for such dreams. Norma can't remember his name, and she has no record of his identity. He was a polite older man with a southern accent and cowboy boots, she told me. The lease money on 3 acres wouldn't amount to much, but the royalty payments, 12.5 percent, could change her life, she was led to believe.

"He told us money would not be a problem ever again," Norma recalled wistfully, as her daughter chatted with in-laws in the other room, an adolescent grandchild snoozed on the couch, and a great-grandson toddled about the house.

DREAM IN PROGRESS

Victoria Switzer could not remember the name of the landman she first spoke to either. But the "charming, nice old guy" who paid a visit to her trailer on a brilliant October day in 2007 found an altogether different set of circumstances and personalities. And the landman adjusted his pitch accordingly.

At the time, Victoria and her husband Jim were living in a trailer while they invested their life savings in their new home being constructed on 7 wooded acres off State Route 3023, which joins the south end of Carter Road. While Norma's idea of a cottage on the lake was little more than a distant vision, the Switzers' dream was in full swing, and the landman successfully presented his deal as not disrupting it. There was no promise of life-changing sums of money. In fact, Victoria remembers, he made it sound as if some "exploratory drilling" in the area would be incidental, at most—"a well or two" somewhere out of the way with few traces of drilling activity. It would not amount to much, but it just might provide some income to contribute to their nest egg as, right then, all their life savings were going into the house. Victoria routinely passed by gas utility lines running through parts of the countryside without giving much thought to where they went. Those lines, familiar and innocuous, reinforced the notion that, with the purchase of their new property and building a new home, they were in a serendipitous position to capitalize on development that was already an established feature of the landscape.

"He made it sound so benign," Victoria told me. "If he said we were going to get rich, flags would have gone up." Without much thought or negotiation, they agreed to the same terms as Norma and the Carters: \$25 per acre

and 12.5 percent royalties. Although Victoria doesn't remember the landman who made the deal with them, she does recall Frank Fletcher; he was there for the signing and he was the one who followed up with other papers that, as events began unfolding, did raise plenty of red flags. "I feel like we traded Manhattan for blankets and beads," Victoria said. She mimicked a patronizing drawl: "'Oh, you're such a worrier, Mrs. Switzer,' he told me. 'Things are going to work out just fine.'"

Since she had been with Jim, things had indeed been working out better than she ever hoped, and perhaps she was taken off guard when the landman came. Victoria Heise, a school teacher for thirty years and single mom for more than twenty years, had begun dating Jim Switzer in 2003. They were a striking couple. Victoria, a brunette barely 5 feet 4 inches tall with penetrating blue eyes and high cheekbones, was a study of poise and focused intensity. Jim—known to his friend and Victoria as Jimmy—was an automotive technology teacher in the same school district. Jim has the physical charisma of an athlete on his game. After his first marriage ended in a divorce, he had become impassioned with bicycling and toured cross country. There seemed little he couldn't do. "If you can read a manual, you can do it," he was fond of saying.

Most of Victoria's adult life had been about working and saving for her daughter's college education, who ended up going to New York University. Victoria taught during the day and sold furniture at night, while rising to the demands of single parenthood. After her divorce as a young mother, there had been no room for a serious relationship—although not for lack of suitors—or even for the indulgence of a house of her own. She rented a place in Tunkhannock, where she taught, and even lived with her parents for a while.

Neither Jim nor Victoria had dated much after their divorces, and they were not looking for anyone during the years they were raising their kids. The two had, however, known each other a long time; their daughters played field hockey together. When they both became empty-nesters, romance happened quickly. He borrowed a friend's Corvette one day to take Victoria on a get-away to Rehoboth Beach, a resort in Delaware. The courtship was "fast and furious," and by the second date they were talking about their common desire for a house in the country. "That did it," Victoria said. "He was my man."

Settling down after all those years to build a house with Jim had a happily-ever-after appeal that became a catalyst for their courtship and a central component of their relationship. It became a multiyear undertaking

involving all their free time, energy, and resources. They began drawing up plans. It was to be a post-and-beam beauty with huge windows and a vaulted ceiling rising 30 feet over a great room drawing to a point on the south end. They had beams and woodwork from native hemlock milled especially for the project and stacked under tarps to cure. They custom-ordered native bluestone, cut, ground, and polished as smooth as marble, for the counters, thresholds, and accents around the great hearth. They designed it all as a family destination-retreat, with rooms for children and grandchildren visiting for weekends and vacations.

The vision was not without sacrifices. Dimock did not strike her right off as the setting for happily-ever-after. “It was cow country and stone quarries,” she said. “How am I going to coexist with that?” There was no nearby place for the sushi or martinis she enjoyed with her friends in Tunkhannock. She had a change of heart when Jim showed her the property, 7 acres of verdant hills with a creek coursing through the woods.

The property came with an old trailer, with moss on its roof and plastic on the windows, where they stayed while planning and building their dream. Victoria almost fell through the floor when she first walked in. It was cramped and uncomfortable but, in hindsight, at least, it possessed the kind of romance suited to newlywed life. “We figured together we could pull this off if we moved into that trailer and did it on our own.” Moreover, her dog, a good-natured German shepherd named Bruin, grew especially attached to trailer life. Although the living quarters could stand improvement, the land was perfect.

Victoria told me that she is “a Jesus fan” and Jesus is central to her ethics and life. She was raised as a Methodist, but she is not a traditional church goer. The natural beauty she finds in daily life serves as her church. She and Bruin found plenty of that in their new woods, where they explored for hours at a stretch. One of her favorite spots was a secluded bank of a creek wandering under a canopy of hemlocks. It reminded her of the creek at her grandmother’s house. The stream was connected to times and places far beyond that, however. As an earth science teacher and Susquehanna County native, Switzer was well aware of the geographical and ecological significance of the watershed and its lattice of waterways leading to the Chesapeake Bay.

The streams are part of a vast system flowing in all directions to the Susquehanna River, which coils in a semi-circle around the county that shares its name. It flows from its headwaters at Otsego Lake, on the southern banks of which lies the village of Cooperstown, New York, and dips

into Pennsylvania before turning abruptly west at Great Bend, snaking along the Southern Tier of New York and then sweeping south again, passing back into Pennsylvania and working its way to the Chesapeake Bay at the end of its 444-mile course. With the Delaware River watershed to the east, the Susquehanna is one the most significant and productive freshwater resources in the country. The sliver of stream that Victoria mused over was a connection to the past, and although she was unaware of it at the time, it would become a powerful icon of the battle taking shape over Marcellus development in law and government offices from Albany, New York, to Washington, D.C.

Victoria, wandering along the stream one day on her new property, began exploring a new stretch of woods on the hillside when she encountered a stranger.

“Who might you be?” the man asked. His name was Ken Ely, and he owned the land on which Victoria was inadvertently trespassing. He had a thick build with strong, deeply tanned forearms and long gray sideburns. Victoria explained she was the new neighbor, and she just liked to hike. She was sorry if she was trespassing.

Switzer knew Ken owned a quarry at the top of the hill, and she fretted over the gash in the land and the dust and noise from trucks rambling over access roads. Ken didn’t like the idea that Switzer had posted signs on her land to keep out hunters. “That’s not very neighborly,” he told her. Indeed, they were polar opposites in appearance and manner—Victoria, a picture of refinement in a color-coordinated hiking ensemble, and Ken looking as rough as unfinished quarry rock in a t-shirt and work boots. Victoria saw the land as a cathedral, a place of inspiration and reflection. Ken, too, was a devout Christian, but a churchgoer—a member of the Baptist Church with the Carters. He was also an avid outdoorsman and a hunter of bear, deer, and turkey. He knew the waterways and tributaries, the hills, and fields of the region well; he knew the fish and game they supported and their importance. He shot animals for sport and for food. Before he became a quarry man, he had owned an excavating business. He was not afraid to disturb the land. It was his livelihood.

At that time, before the landmen had made their mark on Dimock, neither Victoria nor Ken could have anticipated the events about to unfold that would make them close allies, along with the Carters, Norma Fiorentino, and the Farnellis, joined in a fight to salvage their respective dreams.