



Questions About  
*Natural Gas and  
the Barnett Shale?*



Four Sevens



Chesapeake Energy is dedicated to helping citizens, businesses and landowners get the most of their mineral ownership opportunities. And we believe that understanding the specifics about mineral rights, surface rights and the leasing process is the most important first step. Through proper education and community partnerships, Chesapeake Energy is unlocking the enormous potential of the Barnett Shale natural gas play, and unlocking the economic potential for all North Texans. Just another reason why ***TOGETHER, WE ALL WIN.***

# Contents

The Basics	2-4
Mineral Rights	4-6
Leasing 101	7-8
Income Opportunities	9-10
The Players	11-14
About Wellsites	15-17
Environment	18-20
Safety and Security	21-22
Don't Own Mineral Rights?	23-25

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## *“We want to know*

*more about the Barnett Shale but  
aren’t sure where to start.”*

Most likely, as you’ve seen drilling rigs popping up around the region and heard talk regarding natural gas exploration of the Barnett Shale, you’ve been thinking to yourself, “What is this all about?” That’s why Chesapeake, the nation’s largest independent producer of natural gas, created a special Q&A series to ensure that North Texans are well-informed and can benefit from this incredible opportunity.

*Q: What is the Barnett Shale?*

A: The Barnett Shale is a geologic formation of sedimentary rocks that contain natural gas. Experts suggest that it may be the largest onshore natural gas field in North America. The Barnett Shale has already produced enough energy needed to heat every home in Texas for years to come.

*Q: Where exactly is it?*

A: The formation is estimated to stretch across 17-20 counties in North Central Texas, covering approximately 5,000 square miles. The major portion of potential development is located directly beneath Tarrant, Johnson, Dallas and surrounding counties, about a mile and a half underground.



*Q: How is it going to impact me?*

A: From a physical standpoint, minor short-term disruptions may occur on-site, just like any typical urban construction project, but the majority of residents will experience few, if any, changes to daily life, even on a temporary basis. The drilling is designed to have minimum impact on the environment and new pipelines pose no more danger than the common public natural gas lines that already service most neighborhoods. Economically, you will notice a big difference as natural gas production brings billions of dollars to the economy, new jobs and income streams to local property owners, municipalities and other taxing jurisdictions.

“As a property owner,  
*I want to know*  
about my  
mineral rights.”



It's possible that you or someone you know has already received a letter in the mail regarding leasing your minerals, or you may soon. If so, you may have questions. By becoming well-informed about the details of mineral rights, surface rights and the leasing process, you'll be able to make the best decision for your family.

*Q: What exactly are mineral rights and surface rights?*

A: Surface rights are the rights for use of the surface of the land for residential, agricultural, recreational, commercial, or other purposes. Mineral rights are the right of ownership of the mineral resources below the surface. Mineral ownership entitles the owner to explore for, develop and produce the mineral resources. Minerals can be retained, transferred, leased or sold much like a surface property. When mineral rights are sold separately from the surface property, they are said to be "severed."

*Q: How do I know if I own mineral rights on my property?*

A: Owning a piece of property does not automatically mean you own the mineral rights. There are many cases where the original owner sold the surface rights, but retained the mineral rights. A search of your deed or property title can disclose whether you own your minerals. If your current deed doesn't specifically discuss minerals, you may need to look back through the chain of title of the property you currently own. (This is why title searches are necessary to confirm mineral ownership.)

*Q: What do I need to know before signing a mineral lease?*

A: There are many factors to consider before and during the lease process. The main consideration is to discover who will ultimately be producing your minerals, regardless of which company offers you the lease. The operating company is the one that will actually drill and produce your minerals; possibly, but not necessarily, the same one that offers you the lease. Also, consider the reputation and stability of the leasing company, the volume of leases they have generated in this market, the company's relationship to the mineral producer, and their commitment to the community as demonstrated through corporate contributions or civic service.



*“I need to know  
what to consider before  
signing a mineral lease.”*

The Barnett Shale play is an incredible opportunity that is already paying off for many people just like you. But to protect your best interests and get the most out of it, you need to be informed. Remember that mineral leases are legal documents, so it's important to do your homework. That way, you can feel more confident as you consider your options and alternatives.

*Q: What are the terms of a typical lease agreement?*

A: The basic lease agreement involves an initial bonus payment for signing the lease, royalty percentages to be paid if natural gas minerals are found and extracted from the property, and a timeframe within which the energy company has to begin operations. If natural gas production does occur, the lease is in effect for the life of the well – which could be 20 years or more.

*“What can I expect  
to be paid if I lease  
my mineral rights?”*



Understanding the bonus and royalty process – and what you can expect financially – can be confusing. We believe that knowing the basic details of how offers are made will give you confidence about the subject.

***Q: What is a bonus?***

A: Commonly, the term bonus refers to the “up-front” money paid to the owner of the mineral rights in consideration for signing a natural gas lease. It is generally calculated on a per-acre basis, sometimes with a minimum amount guaranteed for the lease, regardless of lot size. Many other factors determine bonus offers, which may include availability and cost of a wellsite, proximity to existing pipelines, access to seismic testing, geologic risks, offset production and existing competition.

***Q: What is a royalty?***

A: A royalty is a payment based on the percentage of a well’s production and on the amount the operating company is paid for the natural gas. Royalty payments start after natural gas is produced and sold. These payments continue for the life of the well – which could be 20 years or more.

*Q: How and when are they paid out?*

A: Bonus payments are typically paid within 45 business days of signing the lease agreement. Royalty payments begin only if your property is placed in a producing unit – meaning when and if natural gas is actually produced and sold. The time from lease-signing to mineral production can vary from months to years, and is determined by many factors. While the bonus money is attractive because it is immediate and tangible, generally the royalty income is more substantial because it can last for decades.





*“I want to get involved,  
but I’m not sure who to talk to.”*

As perhaps the largest natural gas play in the United States, the Barnett Shale holds an opportunity of incredible magnitude. As such, many companies from around the world have converged upon North Texas seeking to take part in the excitement. Unfortunately, the frenzy in the marketplace has turned to confusion for many residents. It’s hard to keep track of which companies are doing what and who all the players are, but just a little homework will help you out.

*Q: What energy companies are operating in the Barnett Shale?*

A: “Energy companies” are not all alike. Some companies specialize in leasing mineral rights or running title research. Others are major exploration and production (E&P) companies – also referred to as “operators.” Yet others are service companies working primarily for operators in natural gas drilling or well-completion functions. Publicly traded E&P companies with strong operations in this market include Chesapeake, Devon, EOG, Quicksilver, Williams and XTO Energy. There are also many smaller, privately or foreign-owned energy companies involved in the play. It’s smart to check out the background and references of any companies you may be working with.

*Q: What should I look for in an operating company?*

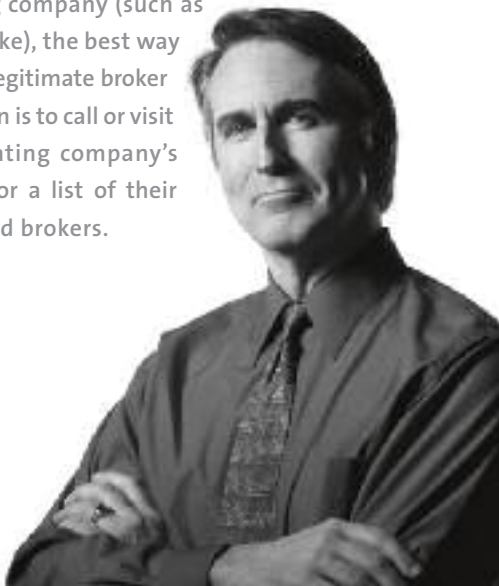
A: Well-established companies with proven track records and drilling success rates will generally produce a better well, which means more royalty income for you. It’s also important to choose an operator with the financial strength to hire the best people and provide the best equipment, with the durability to maintain the well for the next several decades. There are several excellent operators in the Barnett Shale, but there are also young start-up companies with little expertise or capitalization.

*Q: What is a lease broker?*

A: Typically, lease brokers are individuals who work independently or for a lease acquisition company (or lease brokerage firm) on behalf of certain operators. Their job is to acquire mineral leases in a specific geographic area for an E&P company to produce. Brokers may or may not be trained as landmen and may possibly represent more than one E&P company. Be sure to find out which one they represent in your area.

*Q: How do I know which operating company a broker represents?*

A: Though you may receive letters from several different brokers claiming to represent the same operating company (such as Chesapeake), the best way to find a legitimate broker connection is to call or visit the operating company's website for a list of their authorized brokers.



*Q: Who is Chesapeake?*

A: Chesapeake Energy is the #1 driller in Texas and in the U.S. and was recently named “Best-Managed Oil and Gas Company” by *Forbes*. We were also named “Hydrocarbon Producer of the Year” at *Platts Global Energy Awards*, and received the “Excellence in Innovation and Diversity” award for our unprecedented work at DFW International Airport. Our highly skilled teams are among the industry’s best, with a 98 percent drilling success rate. The company has been doing business in Texas since 1990 and has numerous offices throughout Tarrant and Johnson counties, including a corporate office in downtown Fort Worth.



*Once initial drilling is complete, minimal equipment usually remains and padsites are re-landscaped to blend in with their surroundings.*



*“What should I expect  
at a wellsite near my  
neighborhood or on my property?”*

Drilling a natural gas well in an urban environment is extremely efficient, with minimal disruption to its surroundings. First, a padsite is prepared to hold the drilling rig and related equipment. Next, the well is drilled, completed and connected to a pipeline to transport the gas to market. The padsite is then appropriately reduced, reclaimed or landscaped to blend in with its surroundings and meet individual city ordinances.

*Q: How are drillsites selected?*

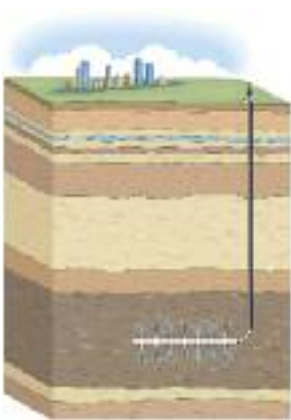
A: Responsible energy companies strive to select drillsites that are the least intrusive to daily life and the environment at large, while being situated to produce the most minerals for their royalty owners, including those municipalities that lease their minerals. Sites are also selected based on available land, city permit restrictions, access routes, proximity to buildings, geologic considerations, ability to place multiple wells at a single site, and ease of connecting to natural gas pipelines.

*Q: How long will the drilling take?*

A: From the time the pad preparation begins for a single-well site, the entire process of setting up the rig, drilling, fracture stimulating (“fracing”) and installing operational equipment is approximately 45 days. Even with multiple-well padsites, the entire process frequently takes less time than building a house or retail center in the same area. During actual drilling – about three weeks – operations run continuously 24 hours a day. The fracing may take three or four additional days and is usually restricted to daylight hours. Noise and traffic are controlled by city ordinances to ensure neighborhood-friendly operations.

**Q: What impact will drilling have on my neighborhood?**

A: Today's technology – and city ordinances – ensure that drilling operations are sensitive to urban neighbors by restricting noise and light, controlling road access and providing security measures. As with any construction site, there will be additional truck



traffic for setting up and taking down the equipment. After the wells are completed, the energy company returns to monitor and maintain the site.

*Horizontal drilling enables the production of minerals in urban environments using very little surface area, leaving houses and buildings undisturbed.*

**Q: What about the pipeline?**

A: Pipelines are necessary to get the natural gas from the wellhead to the market. While the diameter of the pipeline may vary depending on its function, they are all similar to normal utility pipelines that currently deliver gas to your home or office, and thus pose no additional safety issues. New pipelines may be installed through traditional open trenching, boring underneath the ground and streets, or a combination of the two.



## *“We want to know*

*about the advantages of natural gas  
and how it affects our environment.”*

Like many people, you may have questions about the environmental impact of drilling for natural gas. That’s one of the key reasons Chesapeake is so focused on clean-burning natural gas. Natural gas aids in environmental protection and dramatically reduces air pollution by burning cleaner than other conventional fuel sources. The production of natural gas is also much less invasive to our land. In many cases, drillsites ultimately preserve greenspaces by acquiring land that would otherwise be used for commercial or residential developments. And, once drilling is complete, the land is often returned to the community in better condition than it was found, providing immense environmental and economic prosperity for years to come.

*Q: What's the difference between the energy created from natural gas and oil?*

A: Natural gas is the cleanest-burning hydrocarbon, burning 43 percent more cleanly than coal and 28 percent more cleanly than oil. And, it offers a domestically abundant supply that strengthens our local economies while reducing our dependence on unreliable and sometimes hostile foreign resources.

*Q: How does natural gas help minimize air pollution?*

A: Because natural gas is clean-burning, it creates fewer emissions – reducing pollution and preserving air quality.

*Q: Does natural gas drilling impact the water supply?*

A: The process of drilling natural gas wells includes the use of water to drill and create fractures in the geologic structures, allowing the release of natural gas trapped inside the shale. However, natural gas drilling uses less than two percent of all consumed water in the region, and often utilizes effluent water.

*Q: How is the land affected?*

A: Natural gas exploration does not damage the land like coal mining. Short term, drilling may involve disruptions to the site area or roads. However, even with multiple wells, the process is usually accomplished within a few months – taking less time and causing less inconvenience than other commercial or construction projects. Once completed, the site is landscaped to blend in with its urban environment, with minimal equipment remaining.

*Q: Is drilling for natural gas in the city safe?*

A: All drilling in the state of Texas is tightly regulated by the RRC and monitored by the Texas Commission on Environmental Quality to protect the health and safety of the public and our environment. City ordinances also provide additional regulations on urban drilling activity. Responsible operators ensure even more stringent quality control by employing such measures as lightning arrestors, remote telemetry for automatic shut-off controls, ASME (American Society of Mechanical Engineers)-coded vessels and monitored security systems. Sites are routinely inspected by both city and state inspectors.

*Q: I live near an urban drillsite. How will it affect my neighborhood?*

A: City regulations are in place to ensure that any inconvenience is minimal and temporary and no more intrusive than other construction projects. Once the wellsite is completed, there is no noise and minimal visual impact. Some cities allow piping of produced water to keep future truck traffic at a minimum.



*“I want to be sure*

*that natural gas drilling will be safe  
for my neighborhood – and my family.”*

Chesapeake is dedicated to responsible urban drilling that ensures the protection of the places where we live, work, learn and play. That’s why Chesapeake continually reviews and improves all of our safety programs. We work with communities to create comprehensive action plans, operate within the strictest safety guidelines provided by the Railroad Commission of Texas (RRC) and incorporate the most advanced technologies.

*Q: If there is a problem, is there a response plan?*

A: The risk of any problem beyond the actual padsite is extremely low. But if an incident does occur, the industry works in close conjunction with the city's emergency response team, just as other industries do.

“I don't own mineral rights.

*How does the Barnett  
Shale benefit me?”*



Natural gas in the Barnett Shale is an exciting opportunity that provides many benefits to all of us. Consider the growing energy needs of the nation and the world, the increasing concern about environmental pollution and greenhouse emissions, and continued domestic issues related to dependency on foreign resources. Natural gas production presents incredible potential for increased air quality and locally abundant energy reserves. This creates a powerful economic surge that can enhance our quality of life in ways you might never have imagined.

*Q: How does natural gas drilling in the Barnett Shale impact me?*

A: Whether or not you own mineral rights, the Barnett Shale is an incredible opportunity for everyone in Tarrant, Johnson, Dallas and surrounding counties. It provides increased economic growth, new jobs, and new revenue streams for a vibrant business climate which will make our communities a better place in which to live. If you're a business owner, your customers have more money to buy your products and services. If you're an employee, you have an opportunity to increase your earnings as your employer's profits increase. If you're a student, schools can provide more equipment and facilities through the revenue they receive. If you're a resident, you can benefit from the increased services your city can provide with the money they receive from the oil and gas industry.

*Q: How does natural gas benefit our country?*

A: In addition to fueling the local economy, natural gas is clean, abundant, affordable and American. It helps power the country while reducing our dependence on foreign resources. In fact, natural gas from our own soil is the best answer to our electricity and transportation needs. It helps increase our energy security while sustaining our quality of life for years to come.

*Q: How will natural gas drilling affect my property value?*

A: Urban drilling is a relatively new concept that has been made possible through horizontal drilling techniques. However, there is zero evidence to indicate that nearby completed wellsites will have any negative influence on property values, just as there is no evidence that living near an electric transformer, water tower or other utility structure impacts property values. And mineral rights ownership can actually increase your property's value due to future development potential.

*Q: What is the economic impact on my community?*

A: Natural gas drilling and production throughout North Texas is contributing to a robust economy in Tarrant, Johnson, Dallas and surrounding counties. According to noted economist Ray Perryman, Barnett Shale drilling will generate billions in economic development and thousands of new jobs each year. Additionally, major natural gas operators, including Chesapeake, have contributed billions of dollars in capital expenditures and millions in new taxes. Best of all, natural gas drilling is serving to insulate the North Texas region from the volatile economic concerns the nation is projecting, and local industries are experiencing increased patronage, occupancy and business.



*For more information about the benefits of natural gas and production in the Barnett Shale, visit [AskChesapeake.com](http://AskChesapeake.com).*



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