

NATURAL GAS AT A GLANCE



WHAT IS NATURAL GAS?

Natural gas is generally considered a nonrenewable fossil fuel. Natural gas is considered a fossil fuel because most scientists believe that natural gas was formed from the remains of tiny sea animals and plants that died 300 to 400 million years ago. When these tiny sea animals and plants died, they sank to the bottom of the oceans where they were buried by layers of sediment that turned into rock. Over the years, the layers of sedimentary rock became thousands of feet thick, subjecting the energy-rich plant and animal remains to enormous pressure. Most scientists believe that the pressure, combined with the heat of the Earth, changed this organic mixture into petroleum and natural gas. Eventually, concentrations of natural gas became trapped in the rock layers like a wet sponge traps water.

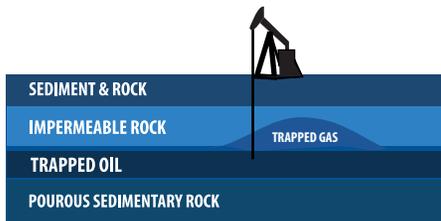
HOW NATURAL GAS WAS FORMED



300 to 400 MILLION YEARS AGO



50 to 100 MILLION YEARS AGO



TODAY



PRODUCING NATURAL GAS

Natural gas can be difficult to find since it is usually trapped in porous rocks deep underground. Geologists use many methods to find natural gas deposits.

Natural gas can be difficult to find since it is usually trapped in porous rocks deep underground. Geologists use many methods to find natural gas deposits. They may look at surface rocks to find clues about underground formations. They may set off small explosions or drop heavy weights on the Earth's surface and record the sound waves as they bounce back from the sedimentary rock layers underground. They also may measure the gravitational pull of rock masses deep within the Earth.

If test results are promising, the scientists may recommend drilling to find the natural gas deposits. Natural gas wells average more than 8,600 feet deep and can cost hundreds of dollars per foot to drill, so it's important to choose sites carefully.

Approximately 60 percent of the exploratory wells produced gas. The others came up dry. The odds are better for developmental wells—wells drilled on known gas fields. Nearly 90 percent of the developmental wells drilled recently yield gas. Natural gas can be found in pockets by itself or in petroleum deposits.

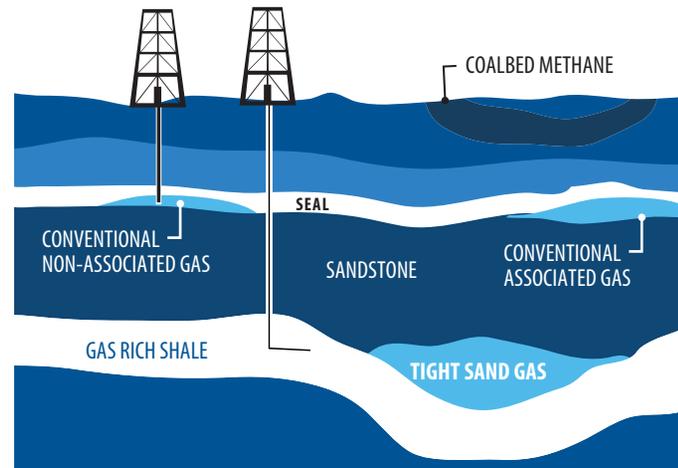
After natural gas comes out of the ground, it goes to a processing plant where it is cleaned of impurities and separated into its various components. Approximately 90 percent of natural gas is composed of methane, but it also contains other gases such as propane and butane.

Natural gas may also come from several other sources. One source is coalbed methane, natural gas found in seams of coal. Until recently, coalbed methane was just considered a safety hazard to miners, but now it is a valuable source of natural gas. Just over 2 percent of the total natural gas produced comes from coalbeds.

Another source of natural gas is the methane produced in landfills. Landfill gas is considered a renewable source of methane since it comes from decaying garbage. This biogas recovered from landfills is usually burned on the landfill site to generate electricity for the facility itself.

Today, natural gas is produced in 34 states, but the top five states—Texas, Pennsylvania, Alaska, Oklahoma, and Wyoming—produce 65 percent of the total. Natural gas is also produced offshore. Almost six percent of U.S. natural gas comes from offshore wells. Altogether, the U.S. produces about one-fifth of the world's natural gas each year.

LOCATIONS OF NATURAL GAS



NATURAL GAS DISTRIBUTION SYSTEM

OVER 2.1 MILLION MILES OF PIPELINE



TOP NATURAL GAS STATES



TEXAS



PENNSYLVANIA



OKLAHOMA



LOUISIANA



OHIO