

Prospects ^{to} Prosperity

*The Story of Oklahoma's
Oil and Gas Industry*

A PUBLICATION OF THE OKLAHOMA INDEPENDENT PETROLEUM ASSOCIATION

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*The Story of Oklahoma's
Oil and Gas Industry*

Commissioned by the Oklahoma Independent Petroleum Association

HPNbooks

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Right: Oklahoma City in 1932.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Opposite: An oil "gusher" towers over the Healdton field in 1910.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.



First Edition

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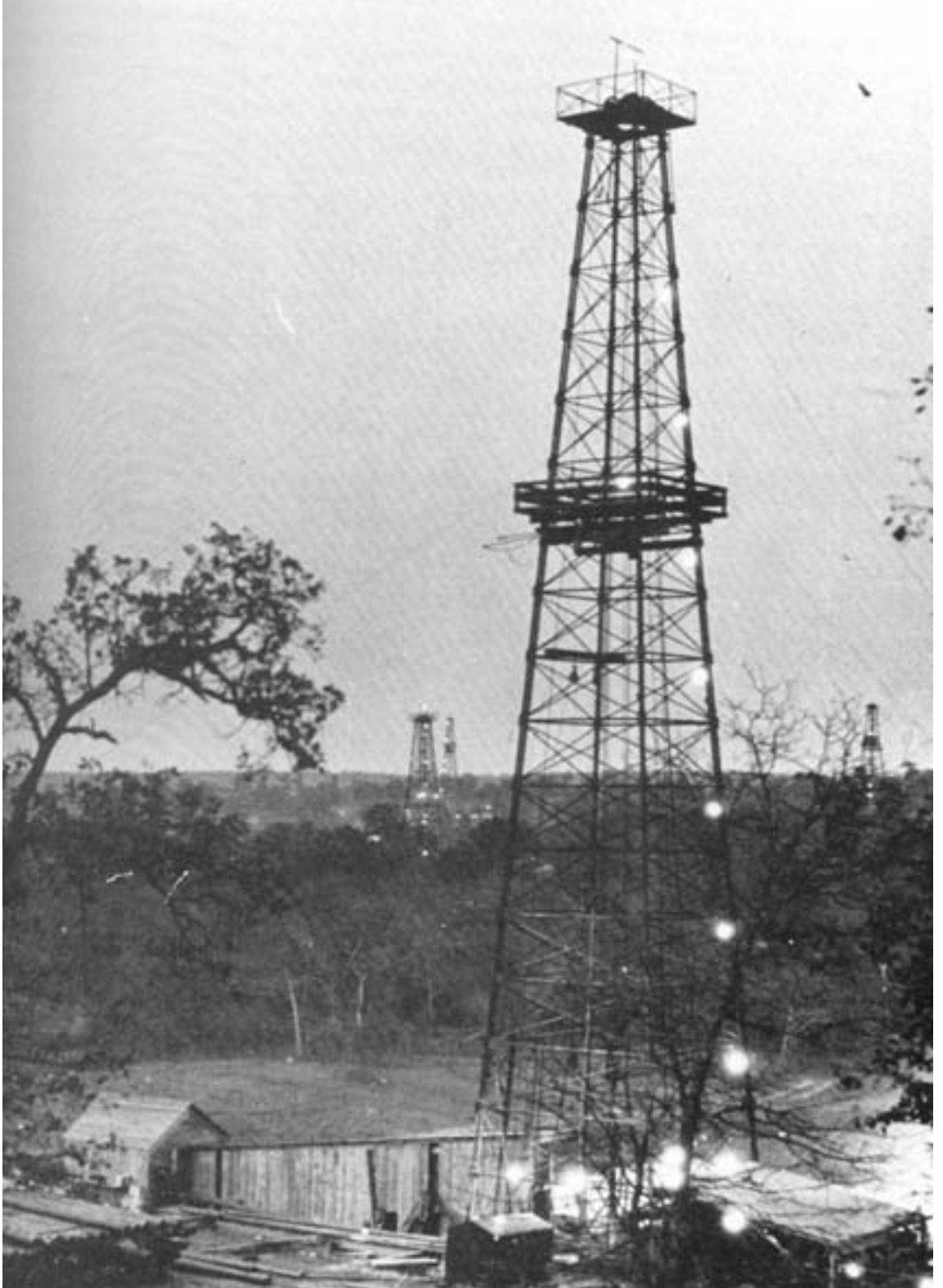
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PROSPECTS TO PROSPERITY

PREFACE

The impact of the discovery of oil and natural gas in Oklahoma can never be overstated. Before businessmen-turned-wildcatters leased and drilled thousands of oil and gas wells, Oklahoma's economy was based upon farming and ranching. The transformation of the state because of the production of "black gold" has been the subject of many books and even movies.

Through a series of discoveries, Oklahoma became one of the leading petroleum producers in the world. There was no doubt that for a period of the twentieth century, Tulsa was the "Oil Capital of the World." Famous oil wells known by romantic names such as Nellie Johnstone, Sue Bland, and Mary Sudik became legendary. Technological advancements made by Oklahoma companies revolutionized the oil and gas industry.

Even though much of the lore of oil and gas comes from oil seeps, gushers, pipelines, and oil fields, Oklahoma's incredible history of oil and gas is not about places or events—it is about people, the hearty breed of Oklahomans who drilled deep beneath the prairie and brought forth a natural wealth that was three times more valuable than the wealth generated by all previous gold and silver rushes in the West.

The oil and gas story is about enterprising young men who put borrowed money and their very lives on the line to realize their dream of tapping the earth's resources—men like Erle Halliburton, E. W. Marland, Frank Phillips, H. H. Champlin, J. Paul Getty, and William G. Skelly.

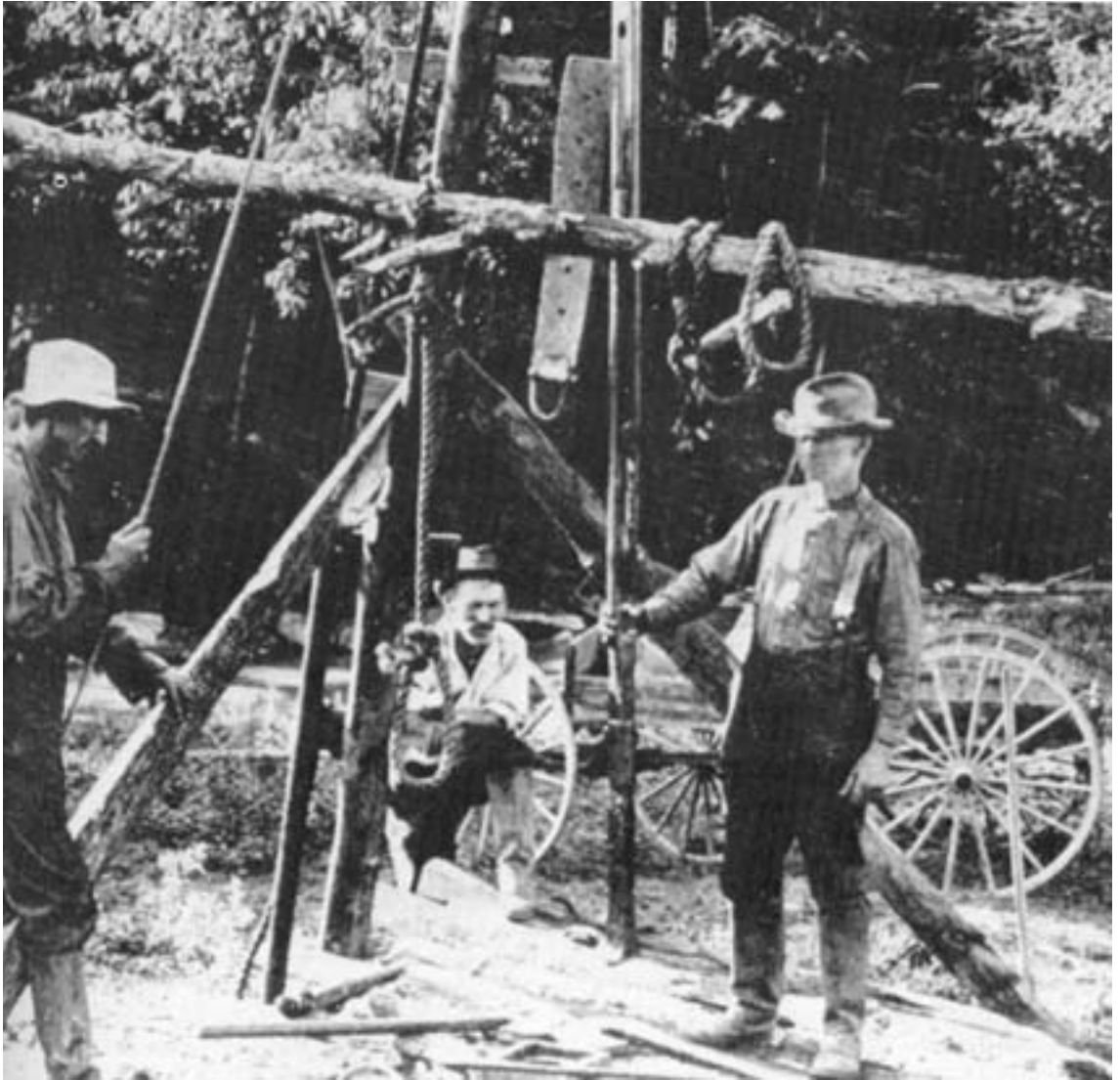
After decades of expansion and production, Oklahoma's oil and gas industry is stronger than ever—not only providing tens of thousands of jobs, but serving as the backbone of philanthropy for worthy causes. The changes that oil and gas made to the 46th state are majestic and everlasting.



A derrick at the Little River pool stands in the midst of the Greater Seminole Oil Field around 1926. Electric lights, shown here on several of the derricks, were just replacing kerosene burning lamps for nighttime drilling.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





EARLY OIL EXPLORATION

Nearly a century before thousands of oil derricks dominated the landscape to the horizon, there was evidence of petroleum in what would become the State of Oklahoma. As early as 1830, Indian agents noted the existence of “medicine springs,” seeps of black liquid that oozed from beneath the rocks and gathered on the surface of springs and creeks.

Native Americans, who were being forced to Indian Territory from their ancestral homes in the southeastern United States, used the oil to doctor themselves and their animals. Word of the seeps spread, and visitors came from neighboring states. In 1853, an agent of the Chickasaw Nation reported:

The oil springs in this nation are attracting considerable attention, as they are said to be a remedy for all chronic diseases. Rheumatism stands no chance at all, and the worst cases of dropsy yield to its effects.

Well-known oil springs near present Tahlequah, Ardmore, and Caddo drew large numbers of Native Americans who lighted their camps with the gas, by placing a tube or gun barrel in the ground.

In 1859, the same year that the world’s first deep oil well was drilled and brought in near Titusville, Pennsylvania, Lewis Ross, a brother of Cherokee Chief John Ross, discovered oil in what is now Mayes County, Oklahoma. The discovery was an accident. Ross sank a deep water well near his salt manufacturing operation at Grand Saline and struck a vein of oil. The well produced ten barrels a day for a year, until gas pressure diminished.

The Civil War thwarted any advances in developing methods to retrieve the oil in Indian Territory. Jacob Bartles, for whom Bartlesville is named, noticed oil seeping out of the ground near Vinita when his Kansas Cavalry unit marched through the area. A few years after the war, George Keeler and Jasper Exendine were herding cattle along Sand Creek in Osage County. When the men’s horses refused to drink the water in a pond, the men discovered the water was covered with a scum of oil.

As the federal government released information detailing locations of streams and springs coated with oil, oil men outside Indian Territory began taking notice. The first petroleum firm in what would become Oklahoma was formed by Robert Darden, a pioneer oil man from Missouri, in 1872. He and 19 Chickasaw and Choctaw citizens organized the Chickasaw Oil Company under Missouri law.

Darden drilled a test well on land near the home of Chickasaw Governor Winchester Colbert in Pontotoc County. However, the Commissioner of Indian Affairs opposed outsiders from speculating in Indian Territory and stopped Darden’s efforts. Also, the entry of the Missouri, Kansas and Texas Railway into Indian Territory in 1872 focused regional attention on coal mining.

In 1884, Dr. H.W. Faucett of New York organized the Choctaw Oil and Refining Company and the Cherokee Oil Company and negotiated for drilling rights to 13 million acres. Two wells were drilled—one on Clear Boggy Creek west of Atoka in the Choctaw nation, and the other on the Illinois River in the Cherokee Nation. When Faucett fell ill, both wells were abandoned.

In 1889, Edward Byrd, an intermarried Cherokee, and founder of the United States Oil & Gas Company, drilled the first of 11 wells near an oil spring southwest of Chelsea in present Rogers County. The most prolific of the wells produced 15 barrels of oil per day. Unable to find a market for his production, Byrd sold his interests to John Phillips, who reorganized the company as the Cherokee Oil and Gas Company. Finding a market was still a problem, and the wells were abandoned. The lack of a market also doomed other oil wells drilled in 1894 near Muskogee.



Innovation was the key to success in the earliest days of the oil discovery. Here men prepare a spring pole drilling rig. Historian Kenny Franks explains the system, “To construct such a rig a sapling near the drilling site was bent over and one end of the cable supporting the bit was attached to the end. The downward thrust was created by pulling the end of the sapling down and the upward pull was created by the natural straightening of the sapling to its original shape.”

COURTESY OF CONOCOPHILLIPS.



Above: An early view along West Third Street in Bartlesville included Oklahoma Iron Works, Oil Well Supply Company and Continental Supply Company.

COURTESY OF THE BARTLESVILLE PUBLIC LIBRARY.

Bottom, left: A wooden rig stands tall in Pontotoc County near the start of the twentieth century.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Bottom, right: Roustabouts take a short break on a rig near Red Fork.

COURTESY OF THE SAPULPA HISTORICAL MUSEUM.

NO. 1 NELLIE JOHNSTONE

Michael Cudahy, owner of the Cudahy Oil Company, was convinced that a profitable oil well could be drilled in Indian Territory. In 1894 he obtained a two-hundred-thousand-acre lease in the Creek Nation. He also forged a deal with George Keeler, William Johnstone, Frank Overlees, and other

prominent Cherokees to drill for oil on the banks of the Caney River north of downtown Bartlesville.

In the middle of a severe Oklahoma winter, Cudahy used 14 teams of oxen to haul 20 wagons loaded with drilling equipment to Bartlesville. The trip took three weeks and cost Cudahy \$400. Drilling began in late January 1897.





On April 15, a large crowd gathered for the “shooting” of the well with nitroglycerin. Cudahy’s step-daughter, Jennie Cass, dropped the charge into the well. There was a muffled explosion as the ground trembled and a large column of oil, water, and debris shot high into the air. Cudahy had a producer—and Oklahoma had its first commercially successful oil well. It was called No. 1 Nellie Johnstone, named for the daughter of William Johnstone.

Cudahy faced the same market problems for his new well that produced between 50 and 75 barrels per day. After the local market was saturated, the well was capped. Leaks allowed oil to pour into a creek that flowed into the Caney River. When a group of children ice-skating on the river built a bonfire to keep warm, the flames spread to the oil well, and destroyed it.



Above: An oil refinery at Chelsea.
COURTESY OF THE DEVONDUNNING PETROLEUM
INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

*Below: This structure was typical of the
cable tool drilling rigs that sprung up all
across Oklahoma oil fields in the early 20th
century. This rig, built from nearby timber,
stood during the boom at Red Fork.*



The success of the Nellie Johnstone was well-known in oil circles across the nation. It was obvious to all that there was a potential “big play” in Indian Territory. The Oklahoma oil fields were part of the Mid-Continent Oil Region that stretched from eastern Kansas, across Oklahoma, to central Texas. Soon, experts would discover a vast reservoir of crude oil that would become one of the nation’s greatest discoveries of natural resources.

Legends have obscured the actual events that led to the drilling of the first well at Red Fork, four miles southwest of Tulsa, in 1901. One version is that two local doctors, C. W. Bland and Fred Clinton, sank the first well in the area. Another story is that two veteran oilmen, Jesse Heydrick and J. S. Wick, drilled the well. Nevertheless, the drilling of the well launched an unprecedented prosperous era of Black Gold in Oklahoma.

On the morning of June 25, 1901, the 600-foot-deep well came in and oil spewed over the top of the derrick. It was Oklahoma’s first gusher. It was named the Sue A. Bland No. 1, for the woman on whose allotment the well was drilled.

News of the gusher spread like wildfire. A headline in the *Tulsa Democrat* said, “A GEYSER OF OIL SPOUTS AT RED FORK.” A newspaper in Kansas City bragged that the gusher of oil shot fifteen feet into the air. The news set off a stampede to Red Fork. Historian Kenny Franks wrote:

It was reminiscent of the gold rushes to California and Colorado. Within a short time, every route leading to the Red Fork community was crowded with horses and wagons carrying the curious and the ambitious, as well as an assortment of shady



A wooden derrick near Berwyn, c. 1920.
COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.





Left: Wooden rigs were commonplace from the 1860's through the 1920s. Capable of drilling more than four thousand feet into the ground, the structures were often built in as little as four days by a small crew consisting of as many as five men. This rig stands on the grounds of the Oklahoma Historical Society in Oklahoma City, 2011.

PHOTO BY CLAIRE DABNEY.

Right: The Sue Bland No. 1 was the first successful oil well in Tulsa County and "triggered oil fever in Oklahoma."

COURTESY OF THE BERYL FORD ROTARY CLUB OF TULSA COLLECTION.

characters, all wanting to procure a share of the black wealth.

Trains brought dozens of "prospectors" to Red Fork each day. Lawyers swarmed to the

oil field to offer their services. Within a week, Red Fork was like "a carnival town." A special train brought Oklahoma City civic leader Charles Colcord and others to evaluate the impact of oil on the region.

WORLD'S FIRST SCHOOL OF PETROLEUM GEOLOGY

In 1900 the University of Oklahoma (OU) established a school of geology under the direction of Charles Newton Gould, known as the "Father of Oklahoma Geology." Traversing Indian and Oklahoma territories in a covered wagon, Gould added significantly to the energy geology of Oklahoma and the entire Southwest.

Gould and his associate professors and students established as a science the use of both surface and subsurface geology in the search for petroleum. He pioneered geology, and later geophysics, as an integral part of searching for oil and gas, although the industry did not accept and widely use his teachings for two decades.

OU awarded its first geological engineering degree in 1919 and is among the top universities in the United States in the number of petroleum engineers graduated in the past century. The ConocoPhillips School of Geology, the Mewbourne School of Petroleum and Geological Engineering, and the Oklahoma Geological Survey, also founded by Gould, make up the OU College of Earth and Energy, which was renamed the Mewbourne College of Earth and Energy in 2007. The college bears the name of 1958 OU petroleum engineering graduate Curtis Mewbourne.

OU petroleum geologists and geophysicists have played an integral role in discovering significant oil and gas reserves throughout the world.



Above: The 1903 construction of a steel toll bridge across the Arkansas River allowed Tulsa access to the Red Fork and Glenn Pool oilfields. The bridge opened in January 1904.

COURTESY OF BERYL FORD ROTARY CLUB OF TULSA COLLECTION.

Opposite, top: A uniquely constructed pumping unit stands atop a tree trunk for stability at a well site on a sand bar in the Arkansas River near Tulsa.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Opposite, bottom: An oil field near Chandler, Oklahoma.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Leaders in nearby Tulsa were interested in getting the word out about the discovery of oil. Before 1901, Tulsa was a cow town—the only traffic jams were caused by longhorns being driven down the streets from the train station to the stockyards. Even though the Sue A. Bland and other Red Fork area wells were never big producers, Red Fork and Tulsa had a taste of what oil could do to transform a town and its people.

The Arkansas River separated Red Fork and Tulsa. In an effort to attract growth to Tulsa, a special train took workers to the oil patch in the morning and returned with them to eat and sleep in Tulsa that night. Several individuals gathered their money and built a toll bridge across the river. The commercial enterprises in Tulsa benefited greatly.

While federal officials questioned the legality of oil leases on allotted land in Indian Territory, speculators began looking at Oklahoma Territory. In 1901 the Oklahoma Natural Gas, Light and Heat Company completed a ten-barrel-per-day oil well north of Granite in Greer County. Employees used a sheet-iron bucket, with a pulley and a

horse, to retrieve the crude from the well. An official of the company that drilled the well boasted that Oklahoma Territory would become one of the greatest fields in the United States.

Other attempts were made to drill near Fort Sill and Lawton. However, homesteaders opposed to the drilling burned several derricks and the effort was abandoned. In 1902, a well was drilled near Newkirk in northeast Oklahoma. Small quantities of natural gas and a high-grade crude oil were reported, but not enough oil was located to touch off a boom. Additional exploration took place near Oklahoma City, Guthrie, McCloud, Shawnee, Cushing, and Chandler, but still, no large pools were uncovered.

Most of the attention toward tapping the unknown reservoirs of oil and gas in Oklahoma and Indian territories in the early years of the twentieth century was directed along the Arkansas River, where long stretches of sand surrounded flowing clear water. The attention was deserved, especially as knowledge of oil and salt water seeps on creeks flowing into the Arkansas were noted by prospectors.





THE OIL RUSH

Oil seeps were well known along Cedar Creek south of Cleveland in Pawnee County. Believing that such seeps were the sign of oil reserves beneath the surface, oil men began seeking leases in the area. When railroad tracks were laid through the county in 1904, interest in drilling increased. The Minnetonka Oil and Gas Company secured leases along Cedar Creek that same year and drilled along the creek bank on the farm of William Lowery.

The well site was almost in the center of a large bend of the Arkansas River. Because the land owner was better known as “Uncle Bill,” the first well on Cedar Creek was called the “Uncle Bill No. 1.” Even though local officials in Cleveland tried to stop the drilling, the well was completed. In June 1904, drillers hit abundant natural gas. But, wanting oil, not gas, they pushed the hole deeper. By the time the well reached 1,250 feet, it was estimated that Uncle Bill No. 1 was flowing up to three million cubic feet of natural gas per day. The production created a stir in the region, and representatives of other companies came to Cleveland.

Drilling deeper, zones were found that were rich with up to 20 million cubic feet of gas per day. Oil sands were eventually reached and the Uncle Bill No. 1 was brought in as a 10-barrel-per-day producer. When the well was shot by the Kansas Torpedo Company on July 23, 1904, the explosion broke loose torrents of oil and daily production jumped to 250 barrels of crude.

Cleveland immediately grew from 1,000 to 7,000 in population. Ultimately, more than \$1.5 million was spent developing the Cleveland Field. A year after the first well came in, more than 200 producing oil wells were completed, with another seven flowing gas. Crude was stored in tanks excavated from the earth, but that method of storage was unacceptable because of seepage and evaporation. Within a few years, wooden and steel tanks capable of storing 1.5 million barrels of oil were constructed in the Cleveland area. Cleveland was the first fully developed pool in what would become Oklahoma.



Workers complete a massive fifty-five-thousand-barrel steel storage tank near Cleveland.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY

GLENN POOL

Tulsa County's real oil boom began on November 22, 1905, when wildcatters Frank Chesley and Robert Galbreath brought in a gusher on a farm owned by Ida Berryhill Glenn about ten miles south of Tulsa. Before daybreak, oil gushed over the top of the derrick over the well that was called the Ida Glenn No 1. With its seventy-five-barrel-per-day production, the well ushered in the first major oil field in Oklahoma—the magnificent Glenn Pool.

Galbreath and other investors in his Creek Oil Company recognized they had discovered a large pool of oil. Armed guards prevented anyone from getting within one mile of their producing well or land they hoped to lease. A second well, the Glenn No. 2, came in on March 15, 1906, and flowed 1,700 barrels of oil in the first 24 hours. The well was capped and began producing eight hundred barrels per day.

The Glenn Pool was called “the richest little oil field in the world.” Within two years, more than 1,000 wells had been drilled and nearly 100 oil companies operated within the pool. Tulsa was at the center of the oil boom, although discovery of oil was in towns adjacent to the growing city. Tulsa became a commercial service center for oil and gas activity in the region.

Within months, the worldwide discovery brought thousands of new people to Tulsa. Housing was scarce and oil field workers slept on the floors of derricks. Storage tanks could not be built fast enough, so the crude was dumped in earthen storage pits.

The need for pipelines brought investment from several companies that built gathering lines through the Glenn Pool. The lines merged at the Frisco Railroad depot at Keifer. By early 1907, the Gulf Pipe Line Company began shipping up to ten thousand barrels of crude per day to its refinery at Port Arthur, Texas.

THE FIRST GAS PROCESSING PLANT WEST OF THE MISSISSIPPI RIVER

When the Glenn Pool began production in 1905 and 1906, the natural gas processing industry west of the Mississippi River began with the construction of a plant by D.W. Franchot and Company. The pool provided raw materials for the gas processing plant that extracted liquid hydrocarbons from the gas.

The gas processing industry grew out of conservation of liquids contained in the natural gas. This “natural gasoline,” was used to fuel the growing number of automobiles. Residue gas was piped to nearby towns for heating and lighting.”



The loading dock of D.W. Franchot's natural gas plant at Kiefer, the first of its kind in Oklahoma.

COURTESY OF THE SAPULPA HISTORICAL MUSEUM.



The Kansas Torpedo Company often sent a “shooter” to hopeful drill sites with a special, padded wagon for carrying nitroglycerin to complete the job. A shooter opened the rich Uncle Bill No. 1 in 1904.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





Much of the production came from the Texas Company, later Texaco. Deals were made in the lobbies of Tulsa hotels, the beginning of Tulsa being labeled as the “Oil Capital of the World.” A newspaper reported that “the Texas operators may be found in the corridor of the Robinson Hotel. Here you will meet operators from Oil Creek, Cross Creek and every other creek that has appeared on an oil map since the days of Colonel Drake.” The astute oil and gas reporter said, “If you want to make a deal, ten to one you will have to seek your man amid the throng in the

hotel lobby. If he is in the oil business, he will be there.”

Newspaperman Patrick Boyle moved his printing press from Pennsylvania, the heart of America’s first oil strike, to Tulsa and changed the name of his publication to the Oil and Gas Journal. With the “bible” of the petroleum industry in Tulsa, major oil prospectors such as John D. Rockefeller’s Prairie Oil and Gas Company established headquarters there. Tulsa became the transport, refining, and financial center for the development of the nation’s huge oil strike, all within 100 miles of



Top, left: The Diamond State No. 4, southwest of Cleveland, welcomes onlookers with a gusher.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Top, right: Robert Galbreath.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: Historian Beryl Ford wrote of the boom at Glenn Pool, “Wooden derricks rushed into the sky every three hundred feet...signaling unprecedented growth in the oil industry in Tulsa County.”

COURTESY OF THE BERYL FORD ROTARY CLUB OF TULSA COLLECTION.





A
Above and top, right: In 1910, a photographer captured this massive fire that engulfed a fifty-five-thousand-barrel storage tank near Healdton after it was struck by lightning.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Below: Bolted steel storage tanks at Glenn Pool.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

what was once a sleepy Creek village. Boston Avenue in downtown Tulsa became one of the nation's busiest streets.

Glenn Pool, the first stratigraphic trap discovery, ultimately grew from an 80-acre tract to a field of nearly 8,000 acres. Petroleum historian Kenny Franks said:

It was Glenn Pool that brought the pipelines to Oklahoma and opened new marketing outlets; it was Glenn Pool that



caused the great influx of capital into Oklahoma that would make continued development of the petroleum industry possible; and it was Glenn Pool that focused the eyes of the nation on the petroleum industry in Oklahoma.





Following the major discovery at Glenpool, Oklahoma did not have another major oil field discovery for several years. However, smaller fields were opened and the drilling fever did not significantly diminish. Tulsa businessmen formally organized campaigns to attract more oil business. Booster trains, with celebrities and bands, traveled to the large cities of the eastern United States. Once, on a nineteenth-city tour, the Frisco booster train stopped at the Chicago Board of Trade. When investors

in New York City were concerned that trading had stopped, they were told, "Tulsa has the floor."

In 1906, the Bird Creek Oil Field was opened in north Tulsa. In seven months, the field had 1,000 producing wells. New oil field servicing businesses opened, and entire new sections of housing and business establishments transformed Tulsa from a boomtown to a proud and powerful city.

The first strike in Okmulgee County was made on the Booch farm in the Creek Nation twenty-five miles south of Glenpool. When another more successful well produced five thousand barrels per day, a flurry of activity began in the Morris Pool.

On November 16, 1907, Oklahoma and Indian territories were united, and Oklahoma was admitted to the Union as the forty-sixth state. With little regulation coming from the infant state government, oil and gas exploration continued unabated. The Lucky Pool was opened near Okmulgee. Crude was found at a shallow depth, between 1,000 and 2,000 feet. Moderate quantities of natural gas were also captured. Other pools in Okmulgee County, usually named for landowners, included Coalton, Bald Hill, and Hamilton Switch. By 1910, three major discoveries were made—Beggs, with 44 wells producing up to 1,000 barrels a day; Henryetta, where one gas well



Above: Patrick Boyle, president of the Petroleum Publishing Company and publisher of the influential Oil and Gas Journal.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: The Texas Company's pump station at Glenn Pool.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





Above: An earthen pool of oil in the Preston Oil Field near Okmulgee, Oklahoma in 1915.

COURTESY OF THE DEVONDUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Top, right: An oil well near Henryetta around 1913.

COURTESY OF THE DEVONDUNNING PETROLEUM INDUSTRY COLLECTION, COURTESY OKLAHOMA HISTORICAL SOCIETY.

Below: The Pauline Robertson Well #1 in the Preston oil field around 1910.

COURTESY OF C.H. WEHR, DEVONDUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

produced 80 million cubic feet a day; and Salt Creek.

The only significant oil and gas regulation to come from Oklahoma's first legislative sessions was a law that defined "eminent domain" and set minimum construction standards for pipelines. Interestingly, surface lines built to transmit gas from wells during the drilling process were exempt from the law. In 1911 the U.S. Supreme Court struck down much of the Oklahoma law, deciding that it conflicted with the federal government's right to control pipelines and interstate commerce.

The Oklahoma Constitution gave the Corporation Commission authority to



regulate oil and gas. As government became more organized, the elected members of the Commission began enforcing a new state law to prevent the waste of natural gas. Gas could be allowed to escape only for four days after completion of a well. The use of gas in flambeau lights was prohibited and gas lights in the vicinity of drilling rigs were to be extinguished between 8:00 a.m. and 5:00





Above: An "earthen tank of oil" at Prague in the 1910s.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Left: Oklahoma Natural Gas Company's plant at Sapulpa.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



Above: The Sapulpa Oil Field.

COURTESY OF THE DEVON/DUNNING PETROLEUM
INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: The Sapulpa Oil field around 1917.

COURTESY OF THE DEVON/DUNNING PETROLEUM
INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

p.m. The state mine inspector appointed deputies to enforce the effort to conserve natural gas.

A year before statehood, the final roll of Osage tribal members was completed and tribal lands were allotted. However, the mineral rights were held in common and each member of the tribe was entitled to one Osage head right, an equal share of oil and gas royalty. Later, after \$10 million

worth of leases were sold in one afternoon, the Osage became the richest-per-capita people in the world. With the vast amounts of money flowing into the Osage Nation, a series of crimes occurred. Osage head right holders were swindled and sometimes murdered for their share of royalty payments.

In 1910, Oklahoma Natural Gas Company (ONG) built the first compressor station on a





Left: An early photograph of an innovative oil and gas separator in the 1910s.

COURTESY OF THE DEVONDUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Stand Bear, left, and White Eagle, chief of the Ponca tribe, were photographed after E. W. Marland struck oil on land he leased from the tribe.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

natural gas pipeline. ONG, incorporated in 1906, built pipelines from Osage lands to Sapulpa and Oklahoma City. The month after Oklahoma statehood, ONG began supplying natural gas to residents of Oklahoma City and soon extended gas lines to Guthrie and Shawnee. By 1919 the company supplied natural gas to 37 communities through more than 1,000 miles of line. In 1980, ONG changed its name to ONEOK, Inc., pronounced “one oak.”

ONG’s installation of a compressor was a typical Oklahoma petroleum innovation that shaped the discovery and production of petroleum in oil and gas fields around the globe. In 1911, E.W. Marland opened the Ponca City Field when he completed the Willie Cries for War No. 1 on sacred land owned by the Ponca Indian tribe. Marland’s strike attracted other wildcatters.

The oil activity in the first years of Oklahoma statehood was not limited to the Osage region of the state. To the south, lands of the Creek Nation were allotted to individual tribal members. The surface of the land was sometimes considered almost worthless, valued as low as fifty cents per acre. However, with help of a courageous band of wildcatters, the Cushing Field was about to be discovered. There were fortunes and legends to be made—as Oklahoma’s petroleum history moved into an unprecedented era.





Right: The historic “Million Dollar Elm” stands on the grounds of the Osage Council Hous in Pawhuska.

COURTESY OF THE OKLAHOMA PUBLISHING COMPANY.



Below: The Indian Territory Illuminating Oil Company construction at the Gasoline and Gas Lift Department in Oklahoma City in March of 1940.

COURTESY OF THE JOHN M. PERRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Opposite, top: Employees of the Indian Territory Illuminating Oil Company attend their first safety meeting in Oklahoma City in November 1930. Pictured are R. B. Walter, W. A. Briggs, Paul Shunkey, and T. Stevens.

GRIFFITHS PHOTOGRAPH, COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

THE MILLION-DOLLAR ELM

One of the most glamorous stories of the American oil and gas industry was symbolized by the “Million Dollar Elm.” The tree in the Osage Indian Nation was given that name because in its shade millions of dollars worth of Osage oil leases were auctioned.

The first well was drilled in the Osage Nation in October 1897, under the auspices of

the Phoenix Oil and Osage Oil companies, combined in 1901 to form the Indian Territory Illuminating Oil Company (ITIO), a predecessor company of Cities Service. ITIO traced its roots to Kansas banker Henry Foster, who had applied for leases on the 1.5 million acres of the Osage reservation as early as 1895. He died before his dream could be





Top: Henry Foster's son, Henry V. Foster, managed the Indian Territory Illuminating Oil Company in the early twentieth century.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Middle: Modern Oil Company Well No. 1 at Bartlesville, Oklahoma, 1911.

COURTESY OF THE DEVON/DOWNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom: The Osage mingle with oil men outside the Osage Agency at Pawhuska.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

billion barrels of crude remained under the rolling prairies of the land reserved for the Osage by the federal government.

An average Osage family received \$65,000 per year in 1926. By 1949, Osage tribal members had received more than \$100 million in royalties and bonuses. The Osage oil fields resulted in boom towns, oil camps that bustled with activity. Towns such as Pawhuska, Hominy, Fairfax, Grainola, and Bartlesville grew overnight. One famous new



town was called Whizbang, now DeNoya, named for a popular magazine called "Captain Billy's Whiz Bang." Many boomtowns declined as the boom ended and became ghost towns.





Top: "The first oil train out of Bartlesville, Indian Territory." The note on the back of this postcard is dated November 3, 1911.

OSCAR DRUM, COURTESY OF DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Middle: Downtown Pawhuska at the height of the oil boom across the Osage oil fields.

COURTESY OF THE OKLAHOMA PUBLISHING COMPANY.

Bottom: An oil field supply yard in Hominy, Oklahoma.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





THE GOLDEN AGE

From early statehood days, oil made Oklahoma. The huge expansion of the economy in the poor agrarian state ushered in an era in which conditions were ripe for continued development. In addition, Oklahoma's petroleum industry had influence far beyond state borders. Technological innovations tested and proved in Oklahoma oil fields revolutionized the search for oil and natural gas worldwide. Oil fortunes made within Oklahoma laid the foundations for some of the world's greatest energy companies.

In 1911, wildcatter Tom Slick began drilling test wells around Cushing. His first few wells were disappointing, but when Slick brought in two wells in 1912, the Cushing Field was opened. A strike of historic proportion, Cushing soon dwarfed Glenn Pool in both size and production.

Slick's grand entry into the oil business was, at best, a series of fortuitous events. No one believed the 28-year-old's claims that oil lay beneath the farms in the Cushing area. After all, the closest oil well was 26 miles away. One night, Slick was twelve miles from Cushing when he came upon a small log house owned by Frank Wheeler. Cold, hungry, and tired, Slick asked to spend the night. Wheeler, a near-broke dirt farmer, his wife, and nine children heartily welcomed the stranger.

Slick convinced Wheeler to lease him his land for exploring for oil. In March 1912, Slick brought in the Wheeler No. 1, opening the great Cushing Field. Millions were made by investors and landowners such as Wheeler, whose royalties sometimes reached \$1,000 a day.

Robert M. McFarlin and James A. Chapman founded the McMan Oil Company in Tulsa in 1912. Staking their future in the Cushing Field, McFarlin and Chapman developed proven areas rather than sink exploratory wells. Their first wells struck the Layton sand formation, opening a huge reservoir of crude oil that was easy to produce. Within a month of the first successful well that produced 500 barrels a day, more than 50 other wells were drilled.

The Cushing Field stretched for miles along the Cimarron River. McMan was the largest producer in the field. By the middle of 1915, crude oil prices, that had dropped to forty cents a barrel, began to rise because of increased demand brought on by World War I. McFarlin and Chapman sold McMan to the Magnolia Oil Company. When the two pioneers returned to the petroleum business, they again were successful in striking oil, finally selling their new company to Standard Oil.

By 1915 the Cushing Field was the tenth largest field in America and produced a daily average flow of more than 300,000 barrels. By the end of 1919, 17 percent of all oil marketed within the United States was produced from what seemed like a limitless reserve in the Cushing. As one of the oil industry's youngest millionaires, Slick was later hailed as the biggest independent oil man in the world, appropriately dubbed "The King of the Wildcatters."

Cushing's legacy was summed up by oil and gas historian Bob Gregory. He wrote, "Most of the wealth from Cushing found its way to Tulsa. What Glenn Pool began, Cushing confirmed and improved." Leases in Tiger—the nation's richest township in 1915—became the frenzy of the field. Gregory said, "At Cushing's high tide, the Indian landowners were each worth between \$2 and \$3 million."

In 1912, the Hotel Tulsa became home to William Grove "Bill" Skelly, a Pennsylvania oil man who brought his innovations in technology westward. The hotel was the venue for billions of dollars of oil deals. Legend has it that Harry Sinclair formed the Sinclair Oil Company after a poker game in the hotel. Another story known to be true is of oil man Josh Cosden writing a \$12-million check to close a deal in the lobby of the Hotel Tulsa. Historian Danney Goble wrote:

At one time or another, everybody who was anybody in oil passed through that lobby, making deals, swapping information, hustling business, and hustling each other. On a typical evening, one might see Tom Slick, Bill Skelly, and one or both of the Sinclairs trading jokes beside one of the marble-clad pillars.



Oil wells and storage tanks spread across the Greater Healdton-Hewitt Oil Field in the 1920s.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



Above: Photographed from a nearby Slick Oil Company lease, fourteen tanks burn across the Tonkawa field leased by Comar Oil Company.

R.H. LAMB PHOTOGRAPH, COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: Robert M. McFarlin, a founder of the McMan Oil Company, stands second from the left.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Cosden, McFarlin, and Chapman might be huddled around another, whispering quietly while some newcomer lounged purposefully nearby, hoping to pick up some information he could use.

J. Paul Getty, later the world's richest man, made Tulsa his home and founded Getty Oil Company. He and his father, George

Getty, first headquartered at the \$6-per-week Cordova Hotel. From that base of operation, young Getty scoured the region for oil leases.

Cities Service Oil Company, based in Bartlesville and, later, Tulsa, launched the first large-scale geological survey in the search for petroleum. Charles Gould was the company's first geologist. By 1918, Cities Service





operated five oil refineries in Oklahoma and had operations in nine fields in the state.

By 1913, Harry Sinclair owned more than 60 oil companies, most of which were in Oklahoma, and became the largest independent oil operator in the Mid-Continent Region. Within a decade, Sinclair was the seventh largest oil company in the nation, adopted the Dino the Dinosaur trademark, and developed one of the nation's best-known corporate images.



Oil made huge money for many Tulsa County residents. The Tulsa Chamber of Commerce claimed to have 50 millionaires on its finance committee.

HEALDTON - HEWITT

The search for oil in the Chickasaw Nation near Healdton began in 1888 when a prospector named Palmer (history does not record his first name) used a hand-powered spring-pole and drilled a four-hundred-foot hole into a producing sand after seeing oil



. Bottom, left: James A. Chapman, a founder of the McMan Oil Company, is seated on the right facing the camera.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Bottom, right: Lou Ann Murphy's grandfather, Fred R. Myers, arrived with many other pioneer laborers in the oil fields near Muskogee around 1915. He met Gladys Anne Vawter while working near Muskogee, and the two were married in Duncan and remained in Oklahoma. Fred had an uncanny ability to "smell" oil and was among the first to establish a well in the Wilcox field near Noble. He eventually retired with thirty years of service to ConocoPhillips.

BARDE'S PERSPECTIVE ON THE CUSHING FIELD

Fred Barde was the Oklahoma correspondent for the *Kansas City Star*, the major newspaper in the nation's heartland. He was a witness to the pandemonium caused by the opening of the Cushing Field. Landowners in the Cimarron Valley became millionaires. Barde wrote:

Here is a wagon with six horses pulling a steam boiler, next comes a wagon creaking and straining under a mass of wire cable. On they come, wagons loaded with steel pipe for the oil wells, lumber for derricks, lumber for stores and dwellings and merchandise for storekeepers. This highway (from Cushing to Drumright) called 'the road from Jericho to Jerusalem,' has been beaten as hard and flat as a floor.



COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

seeps in the area. Unable to secure a lease, Palmer abandoned the well.

During the summer of 1913, Roy M. Johnson, Edward Galt, and A.T. McGhee joined forces with Wirt Franklin and Sam Apple to lease much of the area in which Palmer prospected two decades before. A discovery well was completed in August,



1913, and the rush was on. The original well that opened the Healdton Field was the result of the friends pooling \$5,000 and drilling for just 18 days.

Within a year, 120 companies were operating in the field, including three major companies—Sun, Gulf, and Corsicana. Most of the other producers were shoestring operations, although their principals became legends in the Oklahoma oil business—Wirt Franklin, Bill Skelly, Charles Colcord, and former Governor Charles Haskell. The McMan Company brought in the field's two biggest gushers, each producing forty-three hundred barrels of oil per day. The Healdton Field's largest producer, The Watchorn well, had a daily production of 5,200 barrels.



Opposite, top: W. R. Ramsey and Magnolia's water well, drilled only a few hundred yards from the historic Santa Fe Trail in Cimarron County, Oklahoma.

COURTESY OF THE PHOTOGRAPHER ALVIN RUCKER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Opposite, bottom: The Hotel Tulsa, as depicted on this postcard of the era, was completed in 1912 and was home to many oil deals.

COURTESY OF THE BERYL FORD ROTARY CLUB OF TULSA COLLECTION.

Top: W. G. Skelly.

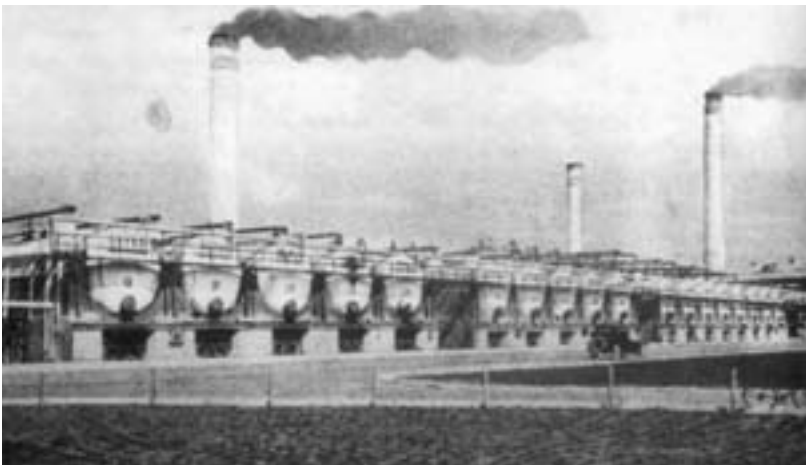
COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Middle: Tulsa's Cosden Refinery provided hundreds of well-paying jobs across the area.

COURTESY OF THE BERYL FORD ROTARY CLUB OF TULSA COLLECTION.

Bottom: The Sinclair Gasoline Plant near Garber, 1925.

COURTESY OF THE JOHN DUNNING POLITICAL COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





Clockwise from top:

Getty Services Stations were found across the state and around the country by the 1980s.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

J. Paul Getty.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

The Healdton Field became a major oil field in 1914 during a period of rapid expansion. Most wells produced at a shallow depth. Where deeper wells in the Cushing Field had cost up to \$20,000 to drill, wells in the Healdton Field sometimes were brought in more as little as \$400. A few wells in the field produced 5,000 barrels a day, although most wells flowed only around 100 barrels



This sign marked the historic Franklin #1 discovery well on Main Street in Healdton. The well was established in August of 1913. The men photographed are A. J. Sutherland, J. R. Biggs, and Frank Johnson.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

The headquarters of Cities Service Oil Company in Bartlesville in the 1960s.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





Top, left: Sinclair's offices in Ardmore, c. 1950.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Top, right: Sam Apple.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Middle: Roy Johnson owned the Ardmore Statesman and was a member of the Oklahoma Hall of Fame.

COURTESY OF OKLAHOMA HERITAGE ASSOCIATION.

Bottom: Frank Buttram opened the Watchorn in northwestern Pawnee County.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.



daily. With cheap drilling costs, the field became known as a “poor man’s friend.”


The U.S. Geological Survey mapped the Healdton Pool and reported that the vast supply of oil came from an anticlinal structure known as the “buried hill.” Most of the production came from a group of Pennsylvanian sands known as the Healdton Sand Zone, between 800 and 1,200 feet beneath the surface.

By August 1914, 242 wells were producing more than 58,000 barrels of oil each day. So much oil could not be transported fast enough from the area, leading to a major disaster on August 27, 1914. Lightning from a powerful thunderstorm struck several storage tanks and ignited a fire that destroyed nearly 400,000 barrels of crude. The raging inferno could be seen for many miles.

Overproduction in the Healdton Field destabilized prices in spite of the efforts of the Oklahoma Corporation Commission. When the price of oil dipped to 40 cents per barrel, the Corporation Commission ordered pipeline carriers to increase purchases of produced oil, provide facilities for rail shipment, and build tanks in the field.

The Corporation Commission also ordered owners of pipelines to purchase oil on a ratable and equitable basis. Healdton thus became the first oil field in the world to be regulated by a state agency. The early-day proration was a forerunner of petroleum



 Above: Charles Colcord, among the pioneers of the Healdton-Hewitt field, sits in his Oklahoma City office.

COURTESY OF THE OKLAHOMA PUBLISHING COMPANY.

Top, right: Wirt Franklin.

COURTESY OF THE OKLAHOMA PUBLISHING COMPANY.

Below: South of the town of Fox in Carter County stood Convict Hill, lined with drilling rigs in the early 1920s.

COURTESY OF THE HEALDTON OIL MUSEUM.

conservation laws that prevent physical and economic waste of petroleum energy.

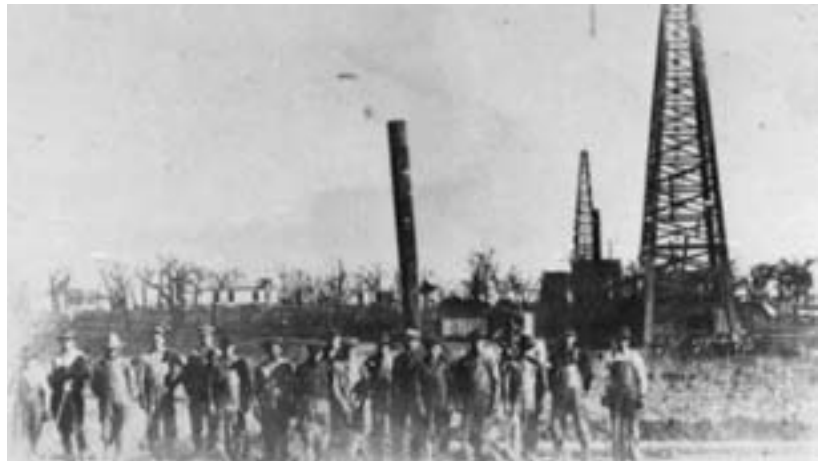
The production of the Healdton, Hewitt, and Sho-Vel-Tum Fields made Ardmore the center of an important petroleum region. Pioneers Wirt Franklin and Roy Johnson contributed greatly to the development of the



national petroleum industry. Many legends in oil and gas got their start at Healdton. Robert A. Hefner, Sr., started an oil and gas venture that has extended three generations. Hefner, a lawyer and later justice of the Oklahoma Supreme Court, introduced the concept of subsurface leasing into mineral rights law.

Another pioneer in the Healdton Field was Lloyd Noble, who founded an international oil business and established the Samuel Roberts Noble Foundation, a non-profit biotechnology research foundation that is world-renowned.

The deadliest petroleum-related explosion in the first decades of the worldwide search for oil and gas occurred in Ardmore on September 27, 1915. Casinghead gasoline, or natural gasoline, was collected from natural



SUPPLYING THE WORLD WITH OIL

In 1915, Oklahoma produced one-third of the oil of the world. Vast quantities of crude poured into pipelines. Two years before, 635 wells were completed—494 oil producers and 52 natural gas wells. Only 88 dry holes were reported. Production in 1915 was 117 million barrels.

In 1907, with 43 million barrels of oil from the Glenn Pool alone, Oklahoma became the nation's leading oil-producing state. For most years, until 1923, Oklahoma held first place among the states for the production of crude oil.



COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

gas at the casinghead of an oil or gas well. The extremely volatile substance was produced at one of 40 Oklahoma natural gasoline plants and was shipped to refineries by rail.

The day before the Ardmore explosion, a railroad car loaded with casinghead gasoline arrived at the Atchison, Topeka, and Santa Fe Railway depot. The plan was to move the car



Continental Supply Company's store in Ardmore.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



Above: Oil burns out of control on Whiskey Creek at the Healdton-Hewitt field.

Historian Kenny Franks writes, "Heavy rains broke the dikes on several earthen storage tanks, allowing crude to escape into Whiskey Creek. Someone set the crude on fire to prevent it from overflowing onto farm land."

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Right: The Oil Museum at Healdton, 2010.

PHOTO BY ERIC DABNEY.

to a nearby refinery the next day. However, temperatures shot high the following day and activated the car's pop-off valves. Gas poured out of the car and into the low-lying areas of

downtown Ardmore. Because of a nearby fire at an asphalt plant, Santa Fe officials removed the car that was becoming an accident waiting to happen.





At 2:20 p.m., triggered by an unknown source, a huge explosion destroyed most of downtown Ardmore. Forty three people were killed and hundreds were injured. A local coroner's jury found Santa Fe at fault. The railroad paid more \$1.2 million for 1,700 claims.

The Ardmore disaster resulted in new rules regulating shipment of casinghead gasoline. The Natural Gasoline Manufacturers Association, headquartered in Tulsa, helped oil companies change and improve the extraction and transportation of natural gasoline.

Even with increased activity in the Healdton Field, other successful ventures in oil and gas exploration were occurring elsewhere in Oklahoma. In 1917 the Phillips Petroleum Company was incorporated at Bartlesville and operated from that city for 85



Top, left: Robert A. Hefner, Sr., served as the mayor of Ardmore during the oil boom in the county.

COURTESY OF OKLAHOMA HERITAGE ASSOCIATION.

Top, right: Main Street in Ardmore during the oil boom.

COURTESY OF OKLAHOMA HISTORICAL SOCIETY.

Middle: Lloyd Noble.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Bottom: A photographer grabs the attention of a Noble Oil Company crew in Carter County.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





Right: Poles were snapped and buildings blown apart as the explosion reined through downtown Ardmore.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



Below: The Noble Foundation, 1950.

COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.



years until a merger with Conoco to become ConocoPhillips.

Frank Phillips and his brother, L. E., drilled their first gusher near Dewey in the Cherokee Nation in 1905 on land leased from an eight-year-old Delaware Indian girl. After trying their hand at banking, they re-entered the oil business with a frenzy. The company was heavily involved in the natural gas industry that was expanding after World War I. Phillips specialized in extracting liquids from natural gas. By 1925 the company was the nation's largest producer of natural gas liquids.

A group of oil men gathered at the Hotel Tulsa in 1917 to join forces as the Mid-Continent Oil & Gas Association, the nation's first energy trade organization. The group's initial purpose was to provide essential supplies of petroleum and petroleum products to Allied forces in the war. The Association continues to be a voice at the Oklahoma State Capitol for oil and gas interest and supports legislation that is positive for the energy business and economy of Oklahoma.

In 1918 the federal government chose Bartlesville as the site for the first experimental facility for scientific and engineering research for oil and gas exploration and production. First called the Petroleum Experiment Station, the Bartlesville



Top: Stockholders of Phillips Petroleum stand near a rig on Osage Lot 189 in the spring of 1919.

COURTESY OF THE BARTLESVILLE PUBLIC LIBRARY.

Middle: A Phillips Petroleum crew works overtime on the Big Bertha No. 1 in the Osage oil field.

COURTESY OF THE BARTLESVILLE PUBLIC LIBRARY.

Bottom: Frank Phillip (right) stands with L. E. Phillips and L. E.'s son Phil at an early well on the Osage oil field.

COURTESY OF CONOCOPHILLIPS.





Above: Frank and Jane Phillips.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Top, right: Frank Phillips in 1928.

COURTESY OF WOOLAROC.

Below: Frank Phillips is made an honorary chief in a special ceremony held at Woolaroc.

COURTESY OF THE OKLAHOMA PUBLISHING COMPANY.



Energy Technology Center researched oil and gas field problems. The Center developed specialists in petroleum engineering and technology. Conservation was the keynote of the Center's work. Its work contributed to orderly oil and gas field development. Scientists at the Center developed secondary

and tertiary methods of recovery. Its researchers, along with scientists employed by Phillips Petroleum and Cities Service provided oil and gas prospectors with the latest technological advances.

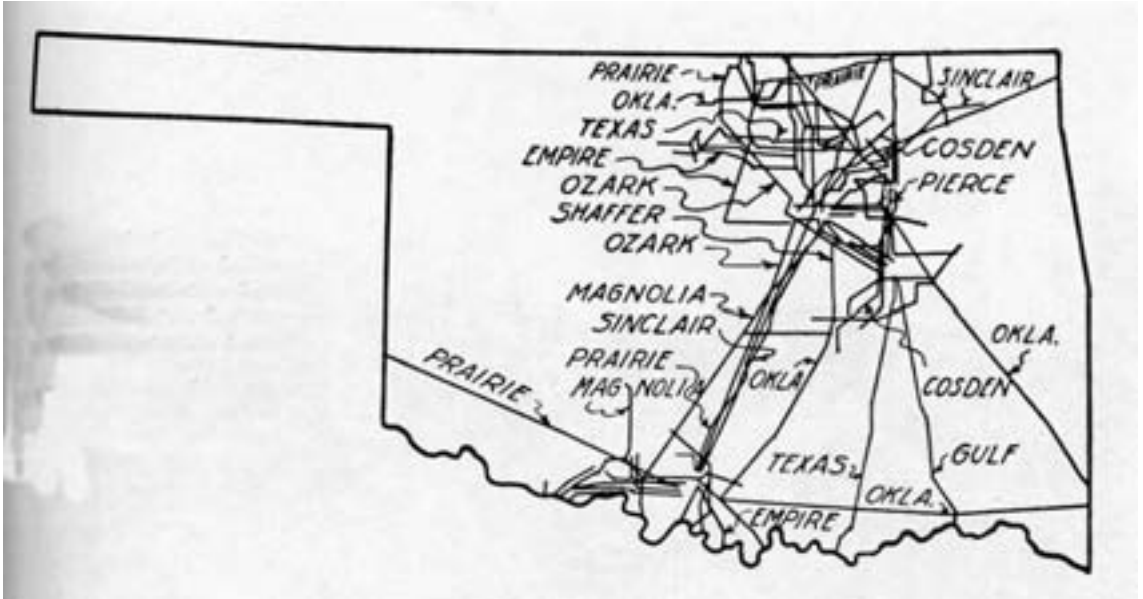
Also in 1918 the Hugoton-Panhandle Gas Field, stretching from Kansas, through the





The mansion extension area to the Oklahoma City oil field in 1937.

PHOTO BY MEYERS PHOTO SHOP; COURTESY OF THE A.J. OCCHI COLLECTION, OKLAHOMA HISTORICAL SOCIETY.



Above: This map shows the intricate web of pipelines and their owners that stretched across Oklahoma by the early twentieth century.

COURTESY OF THE OKLAHOMA GEOLOGICAL SURVEY.

Below: "Capitol Oil View," June 1951.

COURTESY OF THE BARNEY HILLERMAN COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Oklahoma Panhandle, to the Texas Panhandle, was discovered. Charles Gould, the geologist who founded the University of Oklahoma geology school, is credited with much of the scientific field work that resulted in the discovery of the field, the largest natural gas reserve in the United States. The sprawling field also is the world's largest

source of helium.

Within 13 years of the discovery of the field, a 24-inch high-pressure pipeline was built to Chicago, Illinois, and launched an era of long distance pipeline transportation of energy and the widespread use of natural gas at points distant from the source.





"Capitol Oil View," c. 1946.

COURTESY OF THE BARNEY HILLERMAN COLLECTION, OKLAHOMA HISTORICAL SOCIETY.



THE BOOM CONTINUES

At the end of World War I, oil and gas production was big business in Oklahoma. American society had fallen in love with the automobile, and higher-quality gasoline was needed to fuel their choice of transportation. Drilling activity had subsided during the war, although the discovery of the Garber Field resulted in large-scale production of high quality crude demanded by wartime events.

Exploration for oil and gas in Oklahoma expanded greatly in the 1920s. Production on Osage lands literally exploded. In 1919, E. W. Marland, later governor of Oklahoma and founder of Marland Oil Company, a predecessor to Continental Oil Company (Conoco), bought a lease for \$2,000. Within six years, the lease produced 1.6 million barrels of oil.

With headquarters in Ponca City, Marland joined with partners such as Lew Wentz in building a major refining facility and absorbing dozens of other smaller oil and gas producers. Marland opened its first retail gasoline “filling station” in Pawhuska in 1920.

Marland took a paternal interest in his company. He furnished employees’ housing at a low cost, provided free insurance, and paid higher wages than other companies of the era. In addition, he gave large sums of money to local charities. He secured large-scale financing from banking interests owned by J. P. Morgan of New York City. That dependence upon bank financing ultimately caused Marland to lose control of his company, in one of the nation’s first corporate takeovers. Marland was ousted from the company he founded and Marland Oil was absorbed into Conoco.

Marland was one of many oil legends who made their mark on petroleum history in the Burbank Field. Marland’s discovery well on the Bertha Hickman farm near the community of Burbank 20 miles east of Ponca City started the rush when the well came in on May 8, 1920. Later that year, Roxana Petroleum Company brought in another well at 3,450 barrels per day.

Other major players in the Burbank Field were Gypsy Oil Company, Waite Phillips, Phillips Petroleum Company, Skelly Oil Company, and Comar Oil Company. The companies, for conservation purposes, agreed to drill on ten-acre spacing.

The Burbank Field eventually grew to 33 square miles in Osage and Kay counties. The field’s highest production was from 1920 to 1924 with up to 31 million barrels a year in production. On one day, July 21, 1923, 121,000 barrels were produced in the field.

The Tonkawa-Three Sands Field opened in an austere way. E. W. Marland convinced several other companies to drill ten wells near the town of Tonkawa to test his theory that oil was present in the area. The first nine holes were dry—but the tenth well, the J. H. Smith School Land No. 1, came in on June 29, 1921, at 2,660 feet, producing 1,000 barrels a day. High lease prices allowed only larger companies to take part in the find.

Wells near the town of Three Sands yielded the highest grade oil Oklahoma had ever seen and its early average price per barrel of \$3.15 was the highest of any oil producing field in the nation to that point. The field was not a large endeavor, yet the average pay per acre was \$45,000. One farmer made \$3,000 a day in 1923. The Endicott lease, held by Marland Oil, was perhaps the richest lease in the land. At its high point, the farm itself was valued at \$55 million.

Many oil fortunes began in Oklahoma in the 1920s. Erle P. Halliburton established the Halliburton Oil Well Cementing Company in 1920 in Wilson, Oklahoma. He had hocked his wife’s wedding ring to underwrite research and development of his new and improved method of oil-well cementing. Halliburton’s big break occurred when Skelly Oil Company hired him to control a wild well in the Hewitt-Wilson Field. Halliburton’s start in the Oklahoma oil fields resulted in 38 patents for oil field services and tools and his company continues in the twenty-first century as one of the world’s leading companies.



Attendants stand outside a gas station in

Marshall County, 1940.

COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.

THE BIRTHPLACE OF THE SEISMOGRAPH

An Oklahoma physicist, Dr. J. C. Karcher, led pioneering research and development of the reflection seismic technique of oil exploration. Reflected seismic waves were recorded as they traveled through the earth, identifying oil-bearing formations.

The pilot testing of the seismic system took place in the Arbuckle Mountains of southern Oklahoma in 1921. Additional testing was completed in the outskirts of Oklahoma City. Dr. Karcher and other University of Oklahoma geologists measured the first geologic section on August 9, 1921, along Vines Branch, north of Dougherty. The technique became the major method of energy exploration throughout the world.



Top: The headlines of The Daily Oklahoman proclaimed "Blow out of the I.T.I.O well, six miles south of Oklahoma City" on December 5, 1948.

COURTESY OF THE BARNEY HILLERMAN COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Middle: The barreling plant of the Marland Refining Company at Marland Oils.

COURTESY OF THE MARLAND MANSION COLLECTION.

Bottom: After E. W. Marland resigned as president of Marland Oil Company, the famous red triangle that garnered "thousands of tank cars, filling stations, trucks, pump stations, and company-owned buildings across the United States" was emblazoned with the new company name, Conoco.

COURTESY OF THE MARLAND MANSION COLLECTION.

In 1922, with \$300 in the bank, William Kelly Warren founded Warren Petroleum Company, headquartered in Tulsa. He had been drawn to Sapulpa by the oil boom in 1916. Before forming his own company, Warren worked for several companies to gain experience. By 1925, Warren owned the output of 31 gasoline plants in five states. He

doubled the number of plants within the next four years, concentrating on marketing natural gasoline and liquefied petroleum gases.

Phillips Petroleum became a major player in America's oil and gas industry in the 1920s.



In addition to leading production of natural gas liquids, Phillips entered the refining and retail gasoline business. In 1927, the company's first retail station opened. Because it was located near the new federal highway, US-66, the company used "66" in its name. Phillips later used the Route 66 shield as its logo, making its brand recognized across the nation.

In 1926, Robert F. Garland brought in the Tolof Fixico #1 and started the boom in the Greater Seminole Field, Oklahoma's first billion-dollar field. "Greater Seminole" was the name given to 39 different pools in Seminole, Pottawatomie, Okfuskee, Hughes, and Pontotoc counties, when producers met to discuss voluntary proration, well spacing, and production control.

Activity in the field began in 1923 when the R. H. Smith No. 1 Betsy Foster came in near Wewoka, the birth of the Wewoka Field. Soon, fields at Cromwell, Bethel, and Earlsboro opened. The Indian Territory Illuminating Oil Company completed a 1,100-barrel-per-day well in Seminole, opening the Seminole City Field.

Author Carl Coke Rister, wrote about life in the Greater Seminole Field:

Oilmen renting rooms in shifts; crowded noisy streets; 3,600 sweating and hardworking teams pulling oilfield equipment and supplies, filling the streets and highways; the raucous shouts of hucksters and drunken street ramblers; hastily built and odoriferous restaurants and hamburger stands; thousands of barrels of oil from newly-brought-in gushers spraying trees and grass; the stifling effects of escaping gas and the acrid scent of burning oil from pits—all were part of the Greater Seminole.

Peak production in the Greater Seminole Field came on July 3, 1926, when 527,400 barrels were pumped. With the Seminole production, Oklahoma again leaped to the front of oil producing states. At one time, runaway production pushed the price of a barrel of oil down to 17 cents. The Greater Seminole Field was the last petroleum field in Oklahoma that allowed unbridled oil

GOOD FOR TAX OFFERS

State government benefited greatly by the increased activity in oil and gas exploration in the Roaring Twenties. In 1921, gross production taxes provided money for 71 percent of the state government budget.



Left: Lew Wentz.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: Today, the Marland Oil Museum is part of the Marland Estate grounds and includes artifacts of the Marland Oil Company.

PHOTO BY ROBERT BURKE.





THE INTERNATIONAL PETROLEUM EXPOSITION



Above: Opening day at Tulsa's International Petroleum Exposition. The event further solidified the city as the "Oil Capital of the World."

COURTESY OF THE BEVEL FORD ROTARY CLUB OF TULSA COLLECTION.

Bottom, left: The Refiner's and Marketer's Building of the IPE, shown here in 1934, included booths for the country's many oil companies and space was often sold out months in advance.

COURTESY OF OKLAHOMA HISTORICAL SOCIETY.

Bottom, right: A granite monument was unveiled at the entrance of the Tulsa Exposition Center by John Steiger and R. L. Kidd and was donated by the Oklahoma Historical Society and the Oklahoma Petroleum Council.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

The International Petroleum Exposition (IPE) was founded in Tulsa, Oklahoma, in 1923, providing a display to the world of the latest in equipment, operational ideas, and practices used in the petroleum industry.

When the first Exposition was held, it was a street-bazaar type of show with equipment displays valued at \$100,000. By the time of the sixteenth exhibition in 1971, it had grown to include more than 500 of the world's leading manufacturers, services, and supply companies.

The Exposition introduced many innovations in equipment, such as the steel derrick, and fostered foreign trade by promoting exports of oil equipment, thus

influencing other countries in developing their own petroleum resources.

L. B. Jackson, an independent oilman, was the first president of the Exposition. The second was W. G. Skelly, who founded Skelly Oil Company and presided over the International Petroleum Exposition for thirty-two years. W. K. Warren, founder of Warren Petroleum Corporation, was president of the Exposition for ten years.





Top: A crew from Roxana Oil Company takes a moment to rest for a photographer outside the shop at Wirt, 1920.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Middle: Many of the country's most influential oilmen of the early twentieth century gather at E. W. Marland's office in Ponca City, Oklahoma. Pictured are (from left to right) J. Edgar Pew, president, Sun Oil Company; W. S. Farish, president, Humble Oil Company; A. L. Guiberson, Independent Oil Producer; E. W. Marland, president, Marland Oil Company; W. H. Ferguson, vice president, Continental Oil Company; William Boyd, vice president, American Petroleum Institute; Henry McGraw, vice president, Gypsy Oil Company; Robert Welsh, American Petroleum Institute; James A. Veasey, vice president, Carter Oil Company; E. W. Clark, vice president, Union Oil Company and president of American Petroleum Institute; and D. A. Richardson, counsel for Marland Oil Company.

COURTESY OF THE PIONEER WOMAN MUSEUM COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom: Gypsy Gas Plant in Tonkawa. E. W. KOPISCH PHOTOGRAPH, COURTESY OKLAHOMA HISTORICAL SOCIETY PHOTOGRAPH COLLECTION.





Clockwise from top, left:

Erle P. Halliburton.

COURTESY OF THE HALLIBURTON COMPANY.

Erle Halliburton, on the left, maneuvers a high pressure hose as workers cement an oil well.

COURTESY OF THE HALLIBURTON COMPANY.



In the 1920s, Erle Halliburton invented a completely portable jet mixer to streamline the cementing of oil wells across the Mid-Continent oil fields.

COURTESY OF THE HALLIBURTON COMPANY.

A Marland Base was established in the Tonkawa Oilfield. Composed of 160 acres, it produced nearly 10 million barrels of oil and the Marland Oil Company received a profit in excess of \$25 million.

WICHITA MAPPING AND ENGINEERING COMPANY PHOTOGRAPH, COURTESY OF THE PIONEER WOMAN MUSEUM COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





Top, left: Crews cement a well near Graham around 1910.

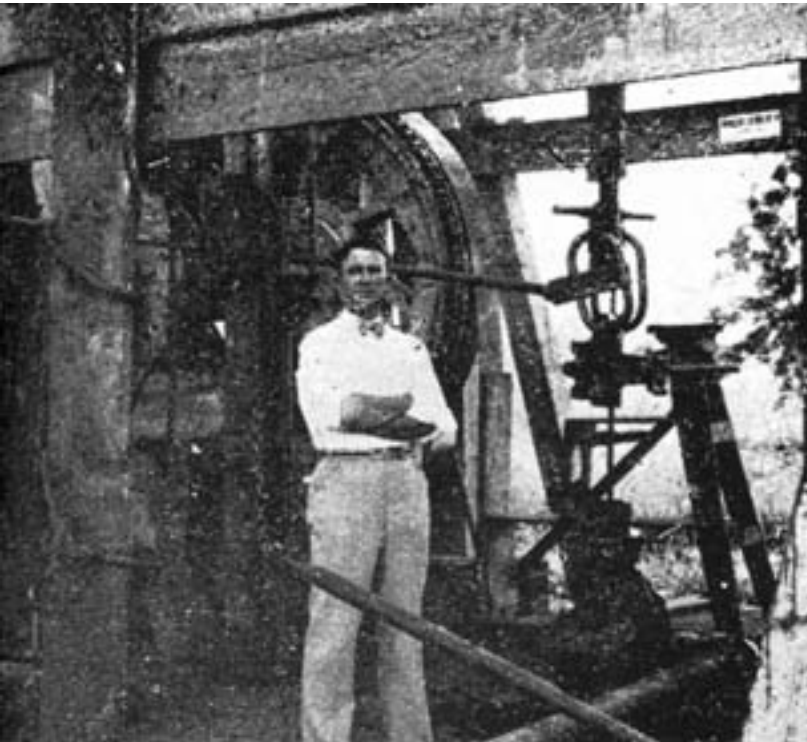
COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.

Above: W. K. Warren.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Bottom, left: Wildcatter Robert Garland stands at the Fixico well east of Seminole.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



production, leading to major state oil and gas conservation reforms enacted by the state legislature in the 1930s.

The glut of oil created the need for more pipelines to carry crude to refineries and distant markets. Six oil companies—Pure Oil Company, Mid-Continent Petroleum

Corporation, Continental Oil Company, Barnsdall Corporation, Skelly Oil, and Phillips Petroleum Company—formed the Great Lakes Pipeline Company. At a cost of \$16.5 million, the company constructed a pipeline capable of pumping 30,000 barrels of gasoline per day through a 1,500-mile system, from Okmulgee,



Oklahoma, north to Minneapolis, Minnesota, then eastward to Chicago. Phillips Petroleum also built a pipeline from Borger, in the Texas Panhandle, to East St. Louis, Illinois, a length of 740 miles. The pipeline's destination allowed further shipment by barge on the Mississippi River.

The Great Lakes Pipe Line Company was later purchased by the Williams Brothers for more than a quarter billion dollars. Williams, now the Williams Companies, Inc., the largest interstate natural gas supplier in the United States, began in 1908 when brothers, S. Miller Williams, Jr., and David R. Williams, began in the construction business in Arkansas. Eventually, the brothers' specialty became steel pipeline construction. They moved their operation to Tulsa, the heart of the oil and gas country, in 1924.

OKLAHOMA CITY

Before 1928, Oklahoma's unprecedented oil and gas production had occurred in rural areas. Tulsa had become the "Oil Capital of the World," not for discoveries in its city limits, but in hamlets and villages within a short radius.

There was no production in the state's largest city, Oklahoma City. However, it was not a result of lack of effort. Since before statehood, prospectors had looked for oil with no success. Only traces of black gold



Opposite, top, right: The historic Garland Independent Fixico No. 1 that opened “the Seminole boom.”

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Opposite, top, left: Large railcars are loaded with crude near Seminole.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Opposite, bottom: A 1940 production map shows the abundance of the Greater Seminole Oilfield.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.



Top: The discovery of Betsy Foster No. 1 well south of Wewoka in 1923 ushered in a new landscape filled with wooden derricks that stretched seemingly for miles across the horizon.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Middle: Wewoka Avenue as the oil boom echoed throughout the city.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Bottom: “Laying pipe in the Wewoka-Barger oil field.”

COURTESY OF THE ALVIN RUCKER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





Top: Oil field fires were not uncommon. This fire east of Seminole burned out of control as a well and tank filled with crude oil erupted in the area.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



Middle: An oil well fire south of Healdton, 1970.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Bottom, left: After lightning struck an oil tank and it caught fire in the mid-1910s, workers prepare to "shoot the tank" and drain the oil.

COURTESY OF THE IRA M. SPANGLER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom, right: This gun was used to shoot oil tanks when they caught on fire. The shot was often a 3" ball that would leave a hole in the side of the tank so the oil could drain into a dyke that surrounded the tank.

COURTESY OF THE IRA M. SPANGLER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





were found in discovery efforts over a thirty-year period from wells attempted at Luther, Newalla, and near the State Capitol.

Geologists were aware of the possibility that oil and gas formations were present within commercially-reachable depths in the Oklahoma City area. Dr. G.E. Anderson, an OU geologist hired by the Indian Territory Illuminating Oil Company, identified positive formations that led the company to lease six thousand acres.

As word of the potential of the region spread, ITIO joined with Foster Petroleum Corporation to drill a test well six miles south of downtown Oklahoma City, just outside the



Top: A typical oil well shooter's buckboard.
COURTESY OF THE IRA M. SPANGLER COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

Middle: A photographer captures an oil field as it comes to life near Tulsa in the early twentieth century.


COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Bottom: The Williams Brothers innovative ditching machine prepares a site near Ardmore on a section of the Texas-Empire Pipe Line Company pipeline.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





 Oil-soaked men, at the center of the photo, battle the wild Mary Sudik.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

city limits. The Oklahoma City No. 1 became a gusher on December 4, 1928. A newspaper reported that when gas pressure forced water from the hole, crude spewed nearly 100 feet above the derrick. The oil was caught by a stiff north wind and fell on automobiles parked south of the site. The newspaper account said oil fell in such quantities that it “settled in holes, filled the ditches of the road to the derrick, and created a stream to the ditches along the county road.” The well flowed out of control for more than an hour before gate valves directed the crude to nearby storage tanks.

Oklahoma City was heralded as an “oil town” and thousands of new workers flooded the capital city. Shanty towns sprang up to house workers. Bodine City was to the south of the well, and Emerson City was built to the west. ITIO owned all leases within two miles of the successful well and began drilling new wells. Soon, the Oklahoma City Field was the largest in the nation.

Because the Oklahoma City No. 1 had been brought in at more than 6,000 feet, drilling was more expensive than in shallow fields in southern Oklahoma. The Empire Pipeline Company built a line from the field northward to a railroad siding five miles away. That allowed exploration to creep toward the city limits. On May 27, 1930, the Hall-Briscoe No. 1 Holmes was brought in within the city limits of Oklahoma City.

A young geologist, Dean A. McGee, was employed by Phillips Petroleum Company to study the geological formations in the Oklahoma City area. So many wells were being drilled that Phillips drilled two wells in a garbage dump in the Walnut Grove section of the city. The wells were named the Ash Can No. 1 and Ash Can No. 2.

A major oil field within an urban area created unique problems. It was a general consensus that some constraints needed to be placed upon spacing, production, and effects upon residential areas. The city council prohibited drilling except in certain areas. Where permitted, wells were limited to one per block. Within months, a section from Southwest 15th to Southeast 29 streets, between Byers Avenue and the Santa Fe Railroad, was filled with derricks. On September 11, 1929, the Oklahoma Corporation Commission stopped all drilling in the Oklahoma City Field in order to assess the effects upon the metropolis.

One of the most spectacular events in Oklahoma oil and gas history occurred on March 26, 1930, when the Mary Sudik No. 1 came in. The drilling crew lost control of the well and oil sprayed the countryside as far as ten miles away. For 11 days the well blew out of control. When it was finally capped, it took 55 men several weeks to plow under the oil-soaked ground.



Because wells in the Oklahoma City Field had high gas pressure at 6,000 feet, other major blowouts occurred. Residents who lived adjacent to the blowouts were afraid to strike a match or cook on gas stoves. When oil sprayed on the North Canadian River, the river caught fire and burned wooden bridges downstream.

The Great Depression had a stranglehold on the Oklahoma economy, including the oil and gas industry, by 1931. The bad economy and overproduction took the price of oil to 22 cents per barrel. Governor William H. "Alfalfa Bill" Murray threatened to shut down the oil fields unless prices rose. On three different occasions in 1932 and 1933, Murray declared martial law and shut production down. In April 1933, the Oklahoma legislature passed legislation that brought oil production under control.

Governor E.W. Marland declared martial law in 1935 in a dispute concerning drill sites on the grounds of the State Capitol. City officials tried to block Marland's plans to develop the oil field around the Capitol. The problems were resolved and intense drilling

began. Oklahoma's Capitol became the only state capitol in the world with an oil well drilled beneath it.

In 1942 the Petunia No. One was completed to a depth of 6,618. It had the unusual name because it was drilled in the middle of a flower bed. Petunia No. One ultimately produced more than two million barrels of oil for which the state received



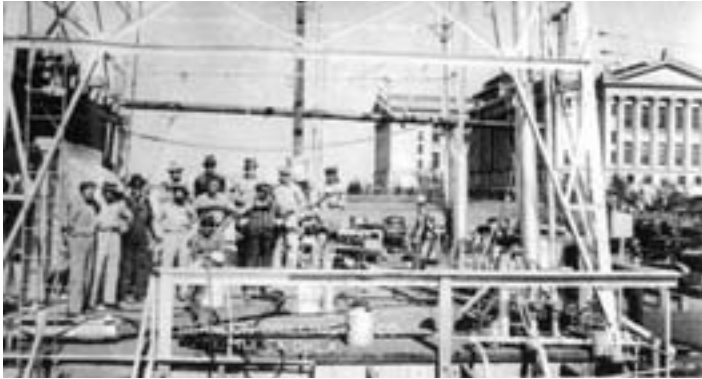
Above: Governor Murray posted Oklahoma National Guard troops at various locations in the state's oil fields to enforce a cut in production.

COURTESY OF THE OKLAHOMA PUBLISHING COMPANY.

Below: A postcard depicting an oilfield near Oklahoma City in the mid-twentieth century.

COURTESY OF THE CODY BURKE COLLECTION.





By the 1940s, oil derricks dominated the landscape surrounding the Oklahoma State Capitol.

COURTESY OF THE CODY BURKE COLLECTION.

nearly \$2 million in royalties and \$200,000 in gross production tax. With the success of the Petunia No. One, other companies purchased leases on the Capitol grounds. At one time, there were 24 producing oil wells.

Peak annual production in the Oklahoma City Field ranged from 51 to 67 million barrels from 1933 through 1937. Strong production continued until several years after World War II. The discovery of the field marked the transition from “creekology” to modern geology.

Other discoveries were made prior to World War II, although the Oklahoma City



Field was the final great oil discovery in the state. The Edmond Field opened in 1930 and the Fitts Field began production in 1933. By 1935, 44 of the state's 77 counties produced commercial quantities of oil from 408 pools that had been officially named.

Because of falling oil prices, primarily because of overproduction, Oklahoma Governor Marland called together the governors of nine oil-producing states in 1935. At an organizational meeting on September 2 the





governors formed the Interstate Oil Compact Commission, a voluntary association of oil-producing states dedicated to the preservation of oil and gas resources. In 1991 the organization's name was changed the Interstate Oil and Gas Compact Commission. The group's headquarters has been in Oklahoma City since established in 1935. By 2012 the Commission had 30 full members, seven associate members, and seven international affiliates. The governor of each state member appoints a member to serve on the governing body.

Even though the Great Depression dramatically affected Oklahoma's oil and gas business, it was also a time of significant technological advances in the oil field. Sun Oil Company developed the catalytic cracking system and the first water flooding experiments were undertaken as a method of secondary recovery of wells thought to be "used up." Innovations in the Oklahoma oil fields spread to other states and around the world, increasing the state's influence on the worldwide oil and gas industry.



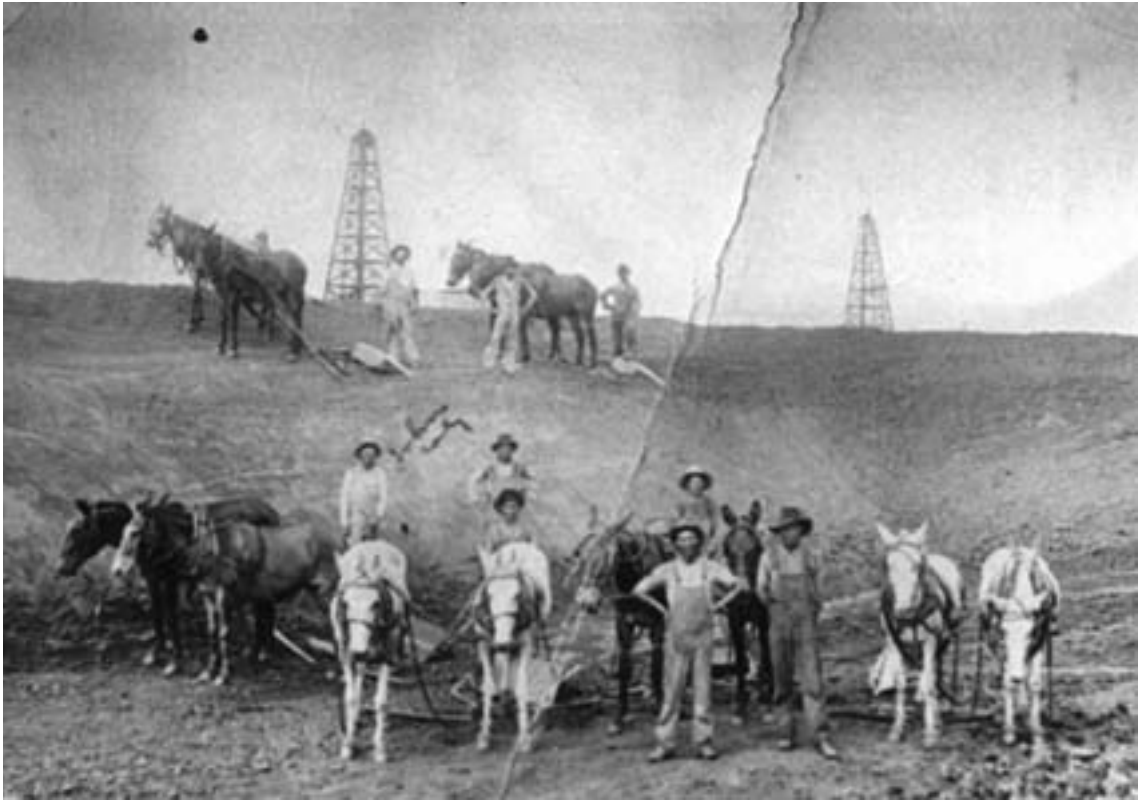
Above: A view of the south approach to the capitol at dusk in 1955.

COURTESY OF THE BOB BURKE COLLECTION, OKLAHOMA DEPARTMENT OF LIBRARIES.

Below: Oklahoma's State Capitol, 2011.

PHOTO BY CLAIRE DABNEY.





CHAPTER V

BOOMTOWNS

The lure of vast fortunes to be made in petroleum, bolstered by the inherent optimism of the wildcatter, played a major role in the transformation of picturesque, quiet farming communities into expanding, bustling oil towns.

- Kenny Franks

Other than for Oklahoma City and Tulsa, oil boomtowns sprang up overnight in sparsely populated rural areas of the state. Small villages became active towns as oil men brought huge amounts of money to invest in pulling crude from beneath the surrounding land. The \$5 billion invested in oil exploration in Oklahoma in the first third of the twentieth century had a staggering effect upon the state's development and its culture.

There were two types of boomtowns. The first, dependent upon a single pool of oil, usually faded into history as soon as drilling and early production ceased. The second type was dominated by production from several pools, and therefore was a site for processing and shipping of crude, an impact that lasted much longer than the initial burst of investment and jobs in times of frenzied drilling.

Towns that experienced spurts of growth in the oil boom such as Oklahoma City, Tulsa, Cushing, Bartlesville, Seminole, Ponca City, and Ardmore flourished even when drillers took their rigs elsewhere. But Oklahoma's golden years of oil production left behind ghost towns, officially described as a town that lost at least eighty percent of its population after initial oil production waned.

Denoya, better known as Whizbang, was the wildest of the boom towns that developed in the Burbank Oil Field. The town came into existence overnight when E. W. Marland completed a well just north of where the town was located. Oilfield supply houses, hotels, restaurants, and banks were built within a month. Shootings were frequent, causing one newspaper to comment, "It is not safe for a woman to be on the streets of Whizbang after dark." When the post office closed in 1942, Denoya became a ghost town.

Three Sands, located on the boundary of Kay and Noble Counties, was born overnight in 1921. Several business districts and oil field camps were built in the area. The town died a slow death until the schools closed in 1946 and the last business ceased operation in 1951.

In 1926, Earlsboro grew from a town of a few hundred to eight to ten thousand people within three months. Main Street went from one block to five blocks with pool halls, movie theaters, lumberyards, and cafes. Shotgun houses were built where residents usually had their vegetable gardens. Tents dotted the landscape—the owner often paid a resident \$25 per month for rent of the space under a shade tree. There were no paved roads, so heavy traffic created either a cloud of dust or a sea of mud, depending upon the weather of the day. By 1940 the population of Earlsboro was less than five hundred.

Wirt, first known as Ragtown, was founded in 1913 shortly after the discovery of oil near Healdton. Within weeks, Wirt had stores along both sides of Main Street. There were at least two major brothels. The town was destroyed by fire four or five times, but was always rebuilt. A collection of shacks housed thousands of workers. Many inhabitants were squatters who lived in any vacant house, or tent, to keep them from the elements. Extreme lawlessness and moral turpitude flourished. The wounding and killing of police officers was not uncommon. One of the most prosperous businesses in town was the undertaking parlor.

Boomtowns received their names in unique ways. During the boom that followed discoveries in the Healdton-Hewitt Field in southern Oklahoma, two boom towns were created along the railroad track west of Ardmore. Ringling was named for John Ringling, the circus owner, who constructed



Workers flooded the state as the oil boom beckoned in the early twentieth century.
COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.



the Ringling and Oil Fields Railroad into the area. The town of Wilson was named for Ringling's secretary, Charles Wilson.

Foraker grew to two thousand people as the center of distribution for oil field equipment in the Burbank Field. When oil production decreased, the population of the town declined rapidly. Kaw City, a prosperous town before the oil boom, experienced exponential growth when oil was discovered nearby. Strangers walked the streets—oil company officials, contractors, millionaires, and bums, looking for a handout. A newspaper reported, "Millionaires occupied shabby little rooms at the two-story brick hotel, with outside sanitation." Streets were widened and new business establishments opened each week. When the oil boom was over, Kaw City became a ranching town again.

Quay was built on the county line between Payne and Pawnee Counties. Derricks competed with shotgun houses, tents, shacks, and oil field supply yards. Main Street stretched for nearly a mile. Boarding houses, hotels, cafes, and businesses were plentiful. The town could not supply enough rooms, so oil field camps were built outside of town. One, near a gasoline plant, had 100 houses. Gamblers, crooks, and prostitutes came quickly. Robbery and murders were common. Nearly ten thousand people lived in Quay, before oil producers left, and the town faded into obscurity.



Above: "Our home" in the Drumright oil fields, c. the 1910s.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Right: Children gather for a game of baseball at an oil field camp in the Cushing field around 1915.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





When oil was discovered in the Greater Seminole Field, the town of Seminole was transformed from a sleepy village of 854 to a boom town of 25,000 to 30,000 people. Seminole maintained its population through the 1920s and became a “morass of mud” as traffic outpaced the ability of town fathers to provide adequate streets. Shacks and tents appeared overnight. By the 1930s, the boom was over. In 2010, Seminole had a population of less than seven thousand.

The demand for labor in the Oklahoma oil fields was so overwhelming, and the pay so

irresistible, thousands of workers flocked to the state from Ohio, West Virginia, and Pennsylvania. Local farmers dropped their plows and reported for duty at the newest drilling rig. A worker new to the oil fields was known as a “boll weevil.” The oil field was known as the “oil patch,” perhaps because farmers were accustomed to calling their field a “cotton patch.” Now the crop was black crude drawn from deep beneath the surface.

Historian Bobby D. Weaver described the life of oil field workers:



Above: The town of Wirt at the height of the oil boom in Carter County.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: Downtown Earlsboro is abuzz along Main Street in 1928. City fathers envisioned a new era in the formerly small town and quickly passed ordinances requiring paved streets and brick buildings.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





This mass of humanity was extremely egalitarian, believing that anybody who got lucky could be the next oil baron. But there was a certain hierarchy, beginning at the top with the wealthy entrepreneurs who promoted oil-field development. Below them were those who worked for the large oil companies or the "majors," and just below them were those who worked for the smaller oil companies or the "independents."

Then came the mass of workers hired by the contractors to do the bulk of the actual work, such as drilling, pipelining, tank building, freighting, and myriad other jobs. This group had its own hierarchy that began with the bosses and worked its way down through the hands. Although subject to great overlap and blurring of lines, the generalization of management, company men, and contractors fairly well defines the social structure within the oil fraternity.

The workers called themselves "oil field hands." Within that group were sub-specialties. On a cable-toll rig, the two-man crew consisted of a "driller," the man in charge, and his helper, called a "tool dresser" or "toolie." On a rotary drilling rig, the four or five men on a crew collectively were called "roughnecks" and consisted of a driller and "floor hands," the "derrick man," and the "motor man."

Oil field workers were in constant danger. Machinery used on rigs had few safety features. Severe burns, amputations, and back injuries were daily events as the drilling activity required the brawn of manual labor to both drill and quickly move equipment to the next location.

Getting to work was a chore. With the need for workers far outstripping the ability of the drillers to provide transportation, derrick hands arrived at work by horseback, buggy, or on foot. It was not unusual for the boss to look up at shift change and see a host of hands "coming across the prairie." Even if a worker managed to own an automobile, he seldom could use it. Kenny Franks said, "The constant traffic of heavy machinery being moved to various locations on the oil



fields kept the existing dirt roads in a deplorable state. A twenty-four-mile round trip often required a full day and, on many occasions, only two trips could be completed in three days. Inclement weather often rendered the roads impassable.”

Housing in boom towns came in phases. The original crews drilling wells were primarily single men working for contractors. They had a rough reputation and lived in farm houses, barns, tents, hotels, rooming houses, and any sort of temporary structure. They ate in hamburger cafes, chili parlors, and makeshift restaurants. Their entertainment was provided by gambling houses, gin mills, and houses of prostitution. Bobby D. Weaver said, “Oil field jobs brought good wages and turned every night into a Saturday night on the town. For many of those who stayed with the work and followed the booms, this became a way of life, and their reckless activities became the hallmark of the oil field worker.”

Once the boom was over, the majors and independents operated a field, much of the chaos ceased. The oil companies employed

more stable workers, often with families. Housing was always a problem so many companies built camps in the middle of the field. The camps ranged from a dozen houses to 100 small three or four-room structures arranged in neat rows and often painted in the company colors. Workers paid a small fee, usually less than \$10 a month, for the right to live in the camp. Larger camps had baseball teams, and sometimes a school. By the 1950s, when better roads provided access to the fields from nearby towns, and workers could afford a decent car or truck, the camps were disbanded.

The oil boom in Oklahoma was filled with excitement, adventure, violence, and great riches. Kenny Franks wrote:

It gave birth to a special breed of men willing to risk all on the turn of a bit. Fortunes were made, lost, and, in some instances, made again. In the wake of the gold rush to California and the subsequent stampede for silver in Colorado, the quest for oil in Oklahoma ranks among the most romantic and flamboyant eras in American history.



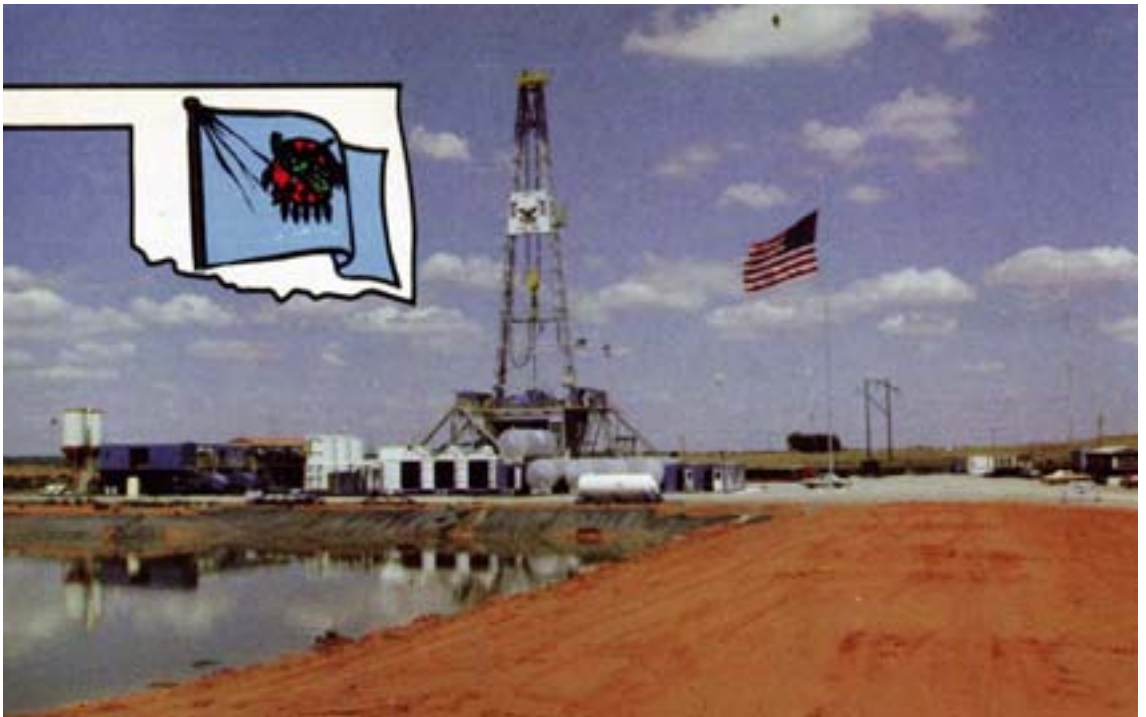
Opposite: Dedicated, tough-as-nails workers have remained an invaluable part of the industry throughout its existence.

COURTESY OF THE HALLIBURTON COMPANY.

Below: In 1959, historian J. Everts Haley wrote of this photograph, “Day and night the steady hands of cementers and operators play their tunes on the controls in servicing wells wherever enterprising drillers probe for oil.”

COURTESY OF THE HALLIBURTON COMPANY.





A MATURE INDUSTRY

World War II increased the demand for petroleum and caused a spike in drilling in Oklahoma. Forty one new fields were opened in the state in 1941. Petroleum was needed to fuel the Allies' road to victory both in Europe and the Pacific. However, the war was bad for domestic marketing in the United States. Gasoline rationing began soon after Pearl Harbor. In addition, it became difficult for oil men in Oklahoma to buy equipment and parts to replenish their drilling rigs. Large-scale salvage operations began to reclaim tons of oil field equipment. Phillips Petroleum Company was able to build a natural gasoline plant using only salvaged material.

Oklahoma oil men helped increase oil production in England during the war. Lloyd Noble, president of Noble Drilling Corporation in Ardmore, headed a group of Oklahomans who drilled nearly one hundred wells in the Nottinghamshire region of England. By the end of the war, the wells brought in by Noble Drilling and Fain-Porter Drilling produced 3.5 million barrels of high-grade oil.

New pools were discovered in Caddo, Pottawatomie, Pawnee, Carter, and Garvin counties, but the days of the discovery of huge new pools were over. In 1943 the West Edmond Field was brought in. All but five of the 26 major oil fields in Oklahoma were discovered before the end of World War II. The last major field, the Postle Field, was opened in Texas County in 1958. The 26 majors make up only one percent of the total number of fields, but account for 59 percent of the total oil produced in Oklahoma's first century.

In 1947, Oklahoma's Kerr-McGee Corporation established the first commercial offshore oil well. The company was founded in Ada in 1929 with Robert S. Kerr and James Anderson as Anderson & Kerr Drilling Company. Later, Kerr, as governor of Oklahoma and U.S. senator, was chairman of the board of Kerr-McGee while Dean A. McGee served as head of production from 1938 until he was named president and CEO in 1954. The company officially became Kerr-McGee in 1946.

With peace restored following the Allied victories of World War II, petroleum production in Oklahoma increased. By 1947, 15 of the nation's 110 major oil fields were located in the state. Oklahoma oil men continued to introduce technological advances to the worldwide petroleum industry.

In 1950, Oklahoma City accountant-turned-oil man, John Nichols, changed the way oil and gas exploration was financed. He and his partner, F. G. "Blackie" Blackwood, obtained approval from the Securities and Exchange Commission for the first federally-recognized joint venture in the history of oil and gas investment. Attorney Kenneth McAfee put together documents that created Fund I and drew investors from Hollywood and from the nation's wealthiest corporate leaders. Nichols and his son, Larry, founded Devon Energy Corporation in 1971. Devon has become Oklahoma's largest public company.

Oklahoma enjoyed a second oil boom from 1953 to 1956. It was nothing like the days at Glenpool, Healdton, Cushing, and Oklahoma City, but the new period of growth resulted from America's increased demand for petroleum products. By 1953, Warren Petroleum of Tulsa became one of the largest producers and marketers of natural gasoline and liquefied petroleum gas. Warren had shipping terminals in five states and the world's largest privately owned fleet of railroad tank cars. In November 1953, Gulf Oil Corporation purchased Warren Petroleum for \$240 million, the largest exchange of money in the nation's energy industry to that time.

The Oklahoma Independent Petroleum Association (OIPA) was founded in 1955 by independent oil and natural gas producers to provide a unified voice for the industry. In 2012 the OIPA had more than two thousand individual and company members and was the state's largest oil and natural gas association. OIPA is one of the industry's strongest advocacy groups.



Printed by the Happy Traveler Post Card Company, this photograph shows the world's deepest well at the time—drilled at thirty-three thousand feet near Interstate 40 between Sayre and Elk City.

LARRY COONROD, COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Oil production in Oklahoma began to diminish in a “long downhill slide” in 1967. Dan T. Boyd of the Oklahoma Geological Survey said, “The state’s productive capacity was maintained by its older, larger, longer-lived fields. Here thousands of wells continued to produce, many in enhanced recovery projects involving water injection.”

Between 1970 and 1975, oil production was down, but drilling activity increased when the Arab oil embargo caused a rapid increase in crude oil prices beginning in 1974. Oklahoma crude prices went from \$3.78 per barrel in 1973 to \$7.18 in 1974. Boyd said, “It had the effect of doubling every oil well’s production rate, as well as the value of its reserves in the ground.”

The Arab-led Organization of Petroleum Exporting Countries (OPEC) cut off supplies to the United States, causing Oklahoma oil men to make “a beeline” for the fields, “turning up old wells and drilling new ones as the price of crude suddenly soared.”

During the new time of boom, \$12 per barrel oil soon went to \$35 per barrel. In 1982, drilling activity in the state reached an all-time high with more than twelve thousand wells completed. In 1983, 28 percent of Oklahoma tax collections came from the gross production tax. Historians W. David Baird and Danney Goble wrote:

Oklahoma’s oilmen rarely bothered even to sleep. Old rigs pumped around the clock, sucking up crude oil almost as fast as its price

was rising. New wells dug deeper and deeper, tapping pools that never would have been profitable at the old price levels.

The abundance was shared by gas producers such as Robert A. Hefner, III, who became known as “The Father of Deep Natural Gas.” Hefner graduated from the University of Oklahoma and pioneered the technology necessary for exploring gas below 15,000 feet. In 1969, Hefner drilled a well in Beckham County to 24,454 feet, and it blew in at the highest pressure ever recorded. Hefner spent much of his time in Washington, D.C., persuading lawmakers to deregulate natural gas to spur production.

In the 1970s and early 1980s, oil and natural gas production was up in Oklahoma. A drilling boom began in the Anadarko Basin, a geologic depositional and structural basin centered in western Oklahoma, the Texas Panhandle, and extending into western Kansas and southeast Colorado. The Basin, one of the most prolific natural gas reserves in North America, had been tapped before in the Hugoton-Panhandle Gas Field, at Union City, Elk City, and in the West Edmond Field. However, those discoveries were at depths of less than ten thousand feet.

The deep gas play brought new activity to western Oklahoma. Baird and Goble said:

Out in Elk City and up at Woodward, developers bulldozed over cottonwoods and cedars, leveled the terrain, and threw up houses, waiting for the flocks of oil field workers sure to roost there soon. Car dealers suddenly found it easy to sell Cadillacs...Jewelry dealers stocked up on Rolex watches. Banks loaned money as fast as they could.

As quickly as the boom began, the bust followed. When OPEC countries broke rank, world oil prices began falling. The crash of the industry saw oil field equipment yards become “cemeteries of rusting rigs and hopes.” In 1984, crude prices fell from \$27 to \$13 per barrel. State tax collections tumbled, causing huge budget cuts. Banks closed, including the Penn Square Bank in Oklahoma





Baird and Goble said of the changes:

If some people missed the excitement of swapping leases beneath the groaning rigs of the latest boom field, most found it pleasant enough to set long-range corporate plans in air-conditioned offices and hatch a few deals over rounds of golf or drinks at the local country clubs. With their days of frenzied growth well behind them, communities like Seminole, Wewoka, and Healdton settled down to an existence that was both orderly and dull.

THE RISE OF NATURAL GAS

In 1963, for the first time in history, Oklahoma natural gas production exceeded the state's oil production in energy equivalency. In 1970, combined oil and gas



Opposite, top: A rig near Madill, 1972.
COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.

Opposite, bottom: The West Edmond field was discovered by Art Gutowsky in 1943.
COURTESY OF THE INTERSTATE OIL
COMPACT COMMISSION.

Left: Dean A. McGee (left) and Robert S. Kerr.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: After 1955, Kerr-McGee sold gasoline under the name Deep Rock.

COURTESY OF THE KERR-MCGEE CORPORATION.

City, a failure that rippled throughout financial institutions across the nation.

From 1984 to 1990, oil production fell at the annual rate of nearly seven percent. Dan T. Boyd predicts that without significant fields being added, "our long-term decline will probably remain significantly above the national rate." By 1999, production dropped to forty percent of the 1986 level.

If the boom years are deleted from the overall picture of oil production in Oklahoma, oil production has undergone a generally continuous decline since 1967. Of the 100,000 wells producing in 1984, less than half were still producing in 2001. Nearly twice as many oil and gas wells were drilled in 2009 than a decade earlier, although the number of producing oil wells remained about the same, approximately 84,000. The increase in number of producing wells came on the natural gas side, from 31,580 in 2000 to 43,600 in 2009.

The changes in the oil industry in Oklahoma from the boom years to the 1980s were dramatic. Each year after 1927, the number of oil field and refinery workers declined. By the 1970s, the production of oil and gas and refining accounted for just five percent of the state's employment and total income.



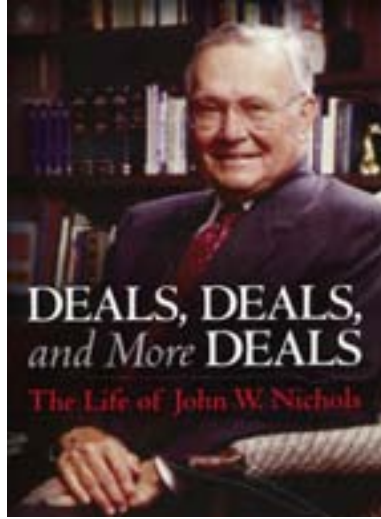


Top, left: *The biography of John W. Nichols* was released by the Oklahoma Heritage Association in 2004 and recognized Nichols as an “exceptional innovator, shrewd entrepreneur, generous philanthropist, devoted father, loving husband, a man of deep religious faith who always played by the rules and lived the American dream.”

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Top, right: Larry Nichols co-founded Devon Energy Corporation with his father, John, in 1970 and was named president of the company in 1976 and chief executive officer in 1980.

COURTESY OF THE DEVON ENERGY CORPORATION.



Bottom, left: Aubrey McClendon is a co-founder and has been the Chief Executive Officer and Chairman of Chesapeake Energy Corporation in Oklahoma City since 1989.

COURTESY OF THE CHESAPEAKE ENERGY CORPORATION.

Bottom, right: *The headquarters of Chesapeake Energy Corporation, 2011.*

PHOTO BY CLAIRE DABNEY.

production peaked at 1.44 million barrels of oil equivalent per day.

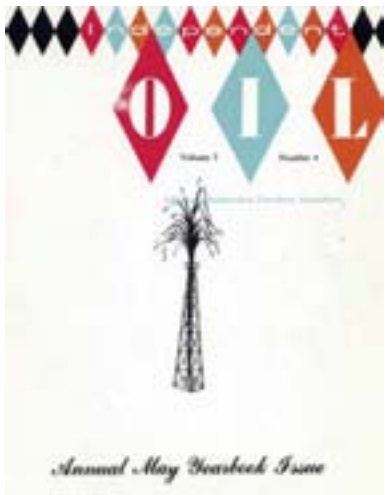
In 1974, Robert A. Hefner, III's GHK Company, using technological advances, drilled the Lone Star Bertha Rogers well in Washita County. At 31,441 feet, the well was the world's deepest. Drilling was halted when molten sulfur was encountered in the Arbuckle Formation. Later, Hefner opened the Potato Hills Gas Field in the Arkoma Basin to deep drilling that tapped reserves in Latimer and Pushmataha counties. It was

the largest Oklahoma petroleum discovery in decades.

The Natural Gas Policy Act took effect in 1978, deregulating prices and allowing them to increase with demand. In 1990, state gas production peaked at 6.2 trillion cubic feet per day. Because of the ebbs and flows of the petroleum business, five years later, the price of Oklahoma natural gas fell to a modern low of \$1.43 per thousand cubic feet.

In 2004, crude oil production in the state dropped to its lowest level since 1913.





Natural gas production also hit a 20-year low, dropping 29 percent since 1990. High prices, however, kept producers in business.

Then, in another turn of events caused by the complicated world of supply and demand and world politics, the petroleum business again became extremely profitable in the second half of the first decade of the twenty first century. Unigas Corporation announced plans in 2007 for a thirty-billion-cubic-foot natural gas storage system to be built beneath Okfuskee County. It was an effort to use storage as a buffer, allowing the system to meet demand that otherwise would send prices skyrocketing. Industry leaders believed more stable prices would allow producers and consumers to budget their estimated costs and sales.

It was a banner year for Oklahoma's oil and gas industry in 2008. The average price of a barrel of oil was \$96.26. Gas production was 1.8 trillion cubic feet, the same level as in 1980. The average monthly rig count hit 200, favorably comparing to the last oil and gas boom of the early 1980s. In 2011, the price of a barrel of oil skyrocketed for a time at more than \$100 a barrel. The gross production tax greatly increased tax revenues for state government. Fifty six of the state's 77 counties had oil production—57 counties had producing natural gas wells.

The economy felt the warmth of the new boom. In 2000, only thirty-six thousand workers were employed by Oklahoma petroleum companies and support businesses. By the end of 2007, more than seventy thousand Oklahomans had jobs with those companies.

Three energy companies, Devon Energy Corporation, Chesapeake Energy Corporation, and the Williams Companies are the state's largest publicly owned businesses. Devon is the largest natural gas producer in Canada and a major supplier of natural gas in the United States. Chesapeake, with 6,500 employees worldwide, owns interests in 38,000 oil and gas wells, half of which are in the Mid-Continent Region. The Williams Companies has more than 1,000 employees working in the BOK Tower in downtown Tulsa, part of a worldwide employee force of 4,000.

In 2008, Chesapeake Energy Corporation CEO Aubrey McClendon told a congressional committee that natural gas is the key to America's energy future. He asked lawmakers to create incentives for carmakers to build more natural gas-powered vehicles and to increase the number of service stations to refuel them. A study commissioned by the American Clear Skies Foundation estimated that the nation was sitting on reserves of 1,247 trillion cubic feet, or enough gas to last 118 years at current levels of consumption.

Chesapeake became a huge player on the natural gas production stage in a few short years. The company was founded in 1989 by McClendon and Tom L. Ward with ten employees and a \$50,000 initial investment. The company succeeded by drilling horizontal natural gas wells into unconventional reservoirs. Chesapeake built an impressive corporate campus in northwest Oklahoma City. By 2010, the company had become the second largest producer of natural gas in the United States and one of the nation's most active drillers of new wells.

Independent producers turned their attention to gas-rich shales. Two of the largest independents, Chesapeake and Anadarko Petroleum Corporation, were near the front of the pack of companies in the land grab for leases containing such shale deposits.



The OIPAs Annual Yearbooks for 1959 and 1962 and OIPA publications from 1980 and 1986.



CHAPTER VII

INTO A NEW CENTURY

The Oklahoma Geological Survey (OGS), the only geological survey created by a state constitution, continues to add to the body of knowledge about Oklahoma geology and natural resources. With research, field work, and mapping, the Survey publishes its findings that are available in books, maps, workshops and seminars, lectures, and on the Internet.

OGS processes many requests from educators, industry professionals, and the public, both in-state and out. Information requested ranges from drilling activity and hydrocarbon potential and production information to general geological information and reservoir characterization. Geologists also teach at the Conoco-Phillips School of Geology and Geophysics at OU.

Data collection and archiving has always been important at the OGS, but activity has increased in recent years because of publications and data available at cost to users of the Internet. The Oklahoma Petroleum Information Center, opened in 2002, has seen a huge increase in usage. Viewing and lab areas are booked for several years in the future. Work tables with microscopes are available for customers examining cuttings. The information center is home to more than 100 miles of core from nearly 10,000 wells, samples from 50,000 wells, well logs, production reports, and other material vital to exploration and production of petroleum.

OGS's library continues to grow through an exchange program with other agencies of the federal government and foreign countries. The Youngblood Geology Library is one of the largest sources of petroleum information in the United States.

Since 1914 the Oklahoma Corporation Commission has regulated oil and gas drilling, production, environmental protection of drilling sites, pipelines, and the environmental integrity of petroleum storage tank systems. The state agency enforces federal regulations controlling the disposal of oil and gas waste fluids and remediation of soil and groundwater pollution caused by leaking petroleum storage tanks.

In fiscal year 2010, the Commission's Oil and Gas Division investigated more than 2,000 complaints involving oil and gas drilling and production. Field inspectors of the division are responsible for locating and recommending sites that need to be cleaned up to the Oklahoma Energy Resources Board (OERB). Once the Commission takes care of environmental hazards such as open well bores and water table pollution, the OERB can begin restoration of the abandoned sites.

The Petroleum Storage Tank Division of the Commission performed 8,372 service station inspections and investigated 526 complaints regarding gasoline consumption by consumers in fiscal year 2010. The Indemnity Fund, used for cleanup of sites contaminated by leaking underground petroleum storage tanks, paid out more than \$18 million that year on 1,541 claims. The Commission's Pipeline Section is responsible for 237 intrastate natural gas pipeline operators.

As the nation's No. 2 gas producing state, Oklahoma's petroleum future has been secured by the flourishing natural gas industry. As the nation cries for cleaner fuels, Oklahoma petroleum leaders are at the forefront of educating lawmakers and the general population about the value of natural gas. Devon Energy Chairman Larry Nichols said the future is bright for natural gas production. He predicted in a speech before a group of freshman Oklahoma legislators that gas would overtake coal as the primary source of power generation. "We're in the midst of a revolution," Nichols said. "That revolution will change things dramatically in terms of power generation in this country."

Another Oklahoman who pushes the importance of natural gas is Holdenville-native T. Boone Pickens who invested \$60 million in 2010 in a national campaign to wean the nation off imported oil. He appeared in Washington, D.C., to support a bill co-sponsored by Oklahoma Congressmen Dan Boren and John Sullivan to give federal tax incentives for making and buying natural gas vehicles. Pickens wanted the focus of natural gas use to turn to the eight million heavy-duty trucks



A view from the derrick floor.

COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.



Above: The Oklahoma City skyline includes the new Devon Tower, completed in 2012. When completed in 2012, the fifty-story corporate skyscraper will be the tallest building in Oklahoma.

PHOTO BY ERIC DABNEY.

Below: A multitude of oil wells tower over Oklahoma City in 1939.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

and buses on American streets and highways. He predicted conversion to natural gas could be done quickly and would have a huge effect on reducing foreign oil imports.

In 2012, Devon Energy's fifty-story world headquarters tower was completed in downtown Oklahoma City. The tower is Oklahoma's tallest building and allowed Devon's employees to work under one roof. Previously, Devon employees had occupied space in five buildings. When Devon vacated the Mid America Tower, independent oil man Harold Hamm moved his Continental Resources headquarters from Enid to occupy the downtown Oklahoma City building.

Downtown Oklahoma City received another boost of energy from the petroleum sector by SandRidge Energy retrofitting the former Kerr-McGee Tower. The CEO of SandRidge,



founded in 1984 as Riata Energy, Inc., is Tom Ward, who co-founded Chesapeake Energy.

A 2011 study commissioned by the Oklahoma Energy Resources Board examined the effects of the oil and natural gas industry on Oklahoma's economy. Russell Evans, director of the Steven C. Agee Economic Research and Policy Institute at Oklahoma City University, said the oil and gas industry is still Oklahoma's number one defining industry.

The report showed that Oklahoma was responsible for 3.5 percent of the nation's oil production and 8.6 percent of natural gas production in the United States. More than 300,000 jobs, working directly for oil and gas companies and supporting businesses, generated more than \$14 billion in labor income.

The conclusion of the study was that the oil and gas industry impacts the Oklahoma economy to the tune of \$51.7 billion in goods and services—nearly one-third of the state's gross product. Mike Terry, chairman of the Oklahoma Independent Petroleum Association, said, "In Oklahoma, we understand the importance of the oil and gas industry. Those of us who live close to the wellhead understand and depend on the impact this industry has on jobs and the overall economy."

OKLAHOMA'S VAST OIL RESERVES

- Crude Oil Proved Reserves: 581 million barrels (2008) (Accounts for 3.0 percent of U.S. crude oil proved reserves.)
- Crude Oil Production: 65.374 million barrels (2009) (Accounts for 3.3 percent of U.S. crude oil production.)
- Total Producing Oil Wells: 83,700 (2009)
- Natural Gas Proved Reserves: 20,845 billion cubic feet (2008) (Accounts for 8.5 percent of U.S. natural gas proved reserves.)
- Natural Gas Production: 1.673 trillion cubic feet (2009) (Accounts for 6.4 percent of U.S. natural gas production.)
- Total Producing Gas Wells: 43,600 (2009)

SOURCE: OKLAHOMA CORPORATION COMMISSION.

CRISS-CROSSING THE STATE WITH PIPELINES

Major pipelines include:

- Crude Oil: Amoco, ARCO, Conoco, Duke, Farmland, Jayhawk, Koch, Mobil, Natural Gas Clearinghouse, Ozark, Seaway, Shell, Sun, Texaco, Ultramar-Diamond Shamrock
- Petroleum Product: Citgo, Conoco, Emerald, Explorer, Phillips, Trans Texas
- Liquefied Petroleum Gas: Conoco, DS, Exxon, Koch, PDIM, Phillips, Trans Texas

SOURCE: OKLAHOMA CORPORATION COMMISSION.



QuikTrip Corporation of Tulsa is among the leading gasoline retailers in America.

COURTESY OF THE QUIKTRIP CORPORATION.





Above: Sinclair Oil and Gas Company
in Tulsa.

COURTESY OF THE ALBERTYPE COLLECTION, OKLAHOMA
HISTORICAL SOCIETY.

Right: The Wynnewood Refinery in 1955.

COURTESY OF THE KERR-MCGEE CORPORATION.

REFINING & MARKETING

Oklahoma refineries have a distillation capacity of 523,100 barrels per calendar day (BCD) (2010). They account for 3 percent of U.S. refining capacity. Refinery operators include:

- ConocoPhillips Company
- Sinclair Oil Corporation
- Sunoco Inc.
- Valero Refining Company
- Ventura Refining and Transmission
- Wynnewood Refining Company

In Oklahoma, there are 3,900 gas station outlets (2008) or about 2.4 percent of U.S. total.

SOURCE: OKLAHOMA CORPORATION COMMISSION.



THE TOP 100 OKLAHOMA OIL PRODUCERS FOR THE YEAR 2009

Rank	Producer	Barrels of Oil Produced	Percentage of State Production
1	Chesapeake Operating Incorporated	7,470,102	11.4%
2	Citation Oil & Gas Corporation	3,762,573	5.8%
3	Chaparral Energy, LLC	2,875,535	4.4%
4	Noble Energy Incorporated	1,520,886	2.3%
5	Linn Operating Incorporated	1,317,356	2.0%
6	Merit Energy Company	1,113,012	1.7%
7	Mack Energy Company	1,013,083	1.5%
8	Sheridan Production Company, LLC	940,723	1.4%
9	Cimarex Energy of Colorado	721,275	1.1%
10	Beta Operating Company, LLC	642,714	1.0%
11	Stephens & Johnson Operating Company	531,977	0.8%
12	Range Production Company	514,624	0.8%
13	Apache Corporation	479,186	0.7%
14	L. E. Jones Operating Incorporated	453,399	0.7%
15	Cimarex Energy Company	443,598	0.7%
16	XTO Energy Incorporated	428,421	0.7%
17	EXCO Resources Incorporated	421,545	0.6%
18	Marathon Oil Company	395,722	0.6%
19	New Dominion, LLC	386,530	0.6%
20	Lamamco Drilling Company	385,752	0.6%
21	Unit Petroleum Company	354,539	0.5%
22	ExxonMobil Corporation	339,997	0.5%
23	EOG Resources Incorporated	329,656	0.5%
24	Questar Exploration & Production	324,683	0.5%
25	ConocoPhillips Company	290,790	0.4%
26	Ward Petroleum Corporation	282,344	0.4%
27	C. E. Harmon Oil Incorporated	249,166	0.4%
28	Crawley Petroleum Corporation	248,593	0.4%
29	Lance Ruffel Oil & Gas Corporation	239,537	0.4%
30	Oklahoma Basic Economy Corporation	234,789	0.4%
31	Newfield Exploration Mid-Continent, Inc.	234,473	0.4%
32	Altex Energy Corporation	228,687	0.3%
33	Ceja Corporation	224,307	0.3%
34	Crow Creek Operating Company II, LLC	215,539	0.3%
35	Binger Operations, LLC	209,883	0.3%
36	Continental Resources Incorporated	209,864	0.3%
37	Samson Resources Company	199,734	0.3%
38	Devon Energy Production Company	198,318	0.3%
39	Chevron Texaco	192,415	0.3%
40	JMA Energy Company, LLC	188,089	0.3%
41	Duncan Oil Properties Incorporated	187,519	0.3%
42	Berexco Incorporated	184,109	0.3%
43	Sandridge Exploration & Production	180,483	0.3%
44	Crusader Energy Group, Inc.	179,814	0.3%
45	Casillas Petroleum Corporation	175,975	0.3%
46	Kaiser-Francis Oil Company	174,734	0.3%
47	Arbuckle Enterprises Incorporated	170,522	0.3%

THE TOP 100 OKLAHOMA OIL PRODUCERS FOR THE YEAR 2009

Rank	Producer	Barrels of Oil Produced	Percentage of State Production
48	Nadel & Gussman	167,220	0.3%
49	Kirkpatrick Oil Company Incorporated	165,381	0.3%
50	Crusader Energy Group, LLC	163,670	0.3%
51	Redland Resources Incorporated	161,632	0.2%
52	Special Energy Corporation	161,226	0.2%
53	Burlington Resources Oil & Gas Company, LP	153,666	0.2%
54	Penn Virginia MC Operating, LLC	150,237	0.2%
55	Arrow Energy Incorporated	146,863	0.2%
56	Ranken Energy Corporation	145,715	0.2%
57	Kalkman Oil Corporation	143,074	0.2%
58	Hinkle Oil & Gas, Inc.	138,692	0.2%
59	Noble Energy Production Incorporated	137,123	0.2%
60	Prime Operating Company	135,154	0.2%
61	Okland Oil Company	132,415	0.2%
62	Primexx Operating Corporation	129,394	0.2%
63	Butkin Oil Company	129,146	0.2%
64	GLB Exploration Incorporated	127,698	0.2%
65	Short Oil Company	126,489	0.2%
66	MM Energy Incorporated	126,327	0.2%
67	NBI Services Incorporated	122,572	0.2%
68	Dexxon Incorporated	116,989	0.2%
69	White Operating Company	116,241	0.2%
70	Bays Exploration Incorporated	110,011	0.2%
71	Cook Operating Company	108,146	0.2%
72	Keith F. Walker Oil & Gas Company	107,428	0.2%
73	Koby Oil Company	106,034	0.2%
74	Veenker Resources Incorporated	104,112	0.2%
75	Grand Resources Incorporated	102,768	0.2%
76	Phoenix Petrocorp Incorporated	101,311	0.2%
77	M-B Operating Company Incorporated	95,380	0.1%
78	Performance Petroleum Company	95,343	0.1%
79	Legado Midcon, LLC	92,091	0.1%
80	BNK Petroleum U.S. Incorporated	91,801	0.1%
81	Lewis Oil Properties	90,133	0.1%
82	Spess Oil Company	89,194	0.1%
83	Wagner & Brown Limited	89,043	0.1%
84	Pontotoc Production Company	88,623	0.1%
85	St. Mary Land & Exploration Company	86,685	0.1%
86	Cimmarron Gathering, LP	86,152	0.1%
87	Triad Energy Incorporated	85,602	0.1%
88	Naifco Oil & Gas, LLC	84,955	0.1%
89	Phoenix Oil & Gas Incorporated	81,827	0.1%
90	Western Oil & Gas Development Company	81,711	0.1%
91	South Burbank Petroleum Corporation	81,533	0.1%
92	Fulcrum Exploration, LLC	79,014	0.1%
93	Mewbourne Oil Company	78,983	0.1%
94	Grayhorse Operating Incorporated	75,455	0.1%

THE TOP 100 OKLAHOMA OIL PRODUCERS FOR THE YEAR 2009

Rank	Producer	Barrels of Oil Produced	Percentage of State Production
95	Ladder Companies Incorporated	75,317	0.1%
96	RDT Properties Incorporated	75,274	0.1%
97	Tripower Resources, LLC	72,461	0.1%
98	KLO	72,310	0.1%
99	Sullivan & Company, LLC	71,486	0.1%
100	BRG Petroleum, LLC	71,337	0.1%
Total oil produced by top 100 producers:		37,895,016	57.97%
Total oil production by all producers:		65,374,115	100.00%

SOURCE: OKLAHOMA CORPORATION COMMISSION.

THE TOP 100 OKLAHOMA GAS PRODUCERS FOR THE YEAR 2009

Rank	Producer	Million Cubic Feet Produced	Percentage of State Production
1	Chesapeake Operating Incorporated	343,684,932	20.5%
2	BP America Production Company	136,710,104	8.2%
3	Newfield Exploration Mid-Continent	96,075,476	5.7%
4	Devon Energy Production Company	77,995,705	4.7%
5	Apache Corporation	73,724,172	4.4%
6	St. Mary Land & Exploration Company	55,360,181	3.3%
7	XTO Energy Incorporated	50,374,985	3.0%
8	Burlington Resources Oil & Gas Company, LP	44,349,543	2.7%
9	Linn Operating, Inc.	38,926,098	2.3%
10	Samson Resource Company	36,651,731	2.2%
11	Unit Petroleum Company	33,313,063	2.0%
12	Marathon Oil Company	33,008,510	2.0%
13	Cimarex Energy Company	31,210,236	1.9%
14	Kaiser-Francis Oil Company	25,330,275	1.5%
15	Continental Resources Incorporated	24,611,459	1.5%
16	Antero Resources Corporation	23,742,241	1.4%
17	New Dominion, LLC	21,113,878	1.3%
18	Questar Exploration & Production	19,104,065	1.1%
19	Altex Energy Corporation	18,012,897	1.1%
20	Petroquest Energy	17,287,597	1.0%
21	Pablo Energy II, LLC	16,528,849	1.0%
22	Noble Energy Incorporated	15,839,228	0.9%
23	Chevron Texaco	15,523,745	0.9%
24	Sandridge Exploration & Production	14,213,963	0.8%
25	Chaparral Energy, LLC	13,726,876	0.8%
26	Range Production Company	13,329,339	0.8%
27	Ward Petroleum Corporation	13,120,494	0.8%
28	El Paso Exploration & Production Company, LP	12,285,905	0.7%
29	Crawley Petroleum Corporation	11,559,955	0.7%
30	Sheridan Production Company, LLC	11,296,804	0.7%

THE TOP 100 OKLAHOMA GAS PRODUCERS FOR THE YEAR 2009

Rank	Producer	Million Cubic Feet Produced	Percentage of State Production
31	ConocoPhillips Company	11,268,472	0.7%
32	Cabot Oil & Gas Corporation	10,972,463	0.7%
33	Special Energy Corporation	10,969,528	0.7%
34	Lime Rock Resources, LP	10,709,074	0.6%
35	JMA Energy Company, LLC	10,583,928	0.6%
36	Cimarex Energy of Colorado	10,055,739	0.6%
37	Merit Energy Company	8,900,764	0.5%
38	Mewbourne Oil Company	8,697,063	0.5%
39	Sanguine Gas Exploration, LLC	7,944,662	0.5%
40	Canaan Resources, LLC	7,660,424	0.5%
41	ExxonMobil Corporation	7,514,866	0.4%
42	Williams Production Mid-Continent	7,379,482	0.4%
43	EXCO Resources Incorporated	7,200,897	0.4%
44	Laredo Petroleum Incorporated	6,788,336	0.4%
45	Western Oil & Gas Development Company	6,715,744	0.4%
46	Duncan Oil Properties Incorporated	6,519,121	0.4%
47	EOG Resources Incorporated	6,500,612	0.4%
48	Crow Creek Operating Company II LLC	5,826,391	0.3%
49	Sedna Energy Incorporated	5,482,735	0.3%
50	Penn Virginia MC Operating, LLC	5,116,993	0.3%
51	Mustang Fuel Corporation	4,695,789	0.3%
52	CEP Mid-Continent, LLC	4,669,008	0.3%
53	Amvest Osage Incorporated	4,528,879	0.3%
54	Oxy USA, Inc.	4,411,767	0.3%
55	Kirkpatrick Oil Company Incorporated	4,399,431	0.3%
56	K&W Oil Company	3,867,933	0.2%
57	Beta Operating Company, LLC	3,793,934	0.2%
58	Dorchester Minerals Operating, LP	3,743,666	0.2%
59	Zenergy Incorporated	3,723,490	0.2%
60	Key Production Company Incorporated	3,669,983	0.2%
61	Strat Land Exploration Company	3,503,699	0.2%
62	Canaan Resources X, LLC	3,412,454	0.2%
63	Stephens Production Company	3,391,820	0.2%
64	Mahalo Energy USA Incorporated	3,338,910	0.2%
65	Tag Team Resources, LLC	3,100,908	0.2%
66	Vernon E. Faulconer Incorporated	2,891,727	0.2%
67	Citation Oil & Gas Corporation	2,847,392	0.2%
68	Harding & Shelton Incorporated	2,829,441	0.2%
69	CEI Petroleum Incorporated	2,679,178	0.2%
70	United Production Company, LLC	2,646,505	0.2%
71	Lance Ruffel Oil & Gas Corporation	2,638,429	0.2%
72	Four Star Oil & Gas Company	2,637,536	0.2%
73	Anadarko Petroleum Corporation	2,599,400	0.2%
74	Bullseye Operating, LLC	2,552,523	0.2%
75	Meade Energy Corporation	2,532,301	0.2%
76	Marjo Operating Company Incorporated	2,421,639	0.1%
77	Latigo Oil & Gas Incorporated	2,383,824	0.1%

THE TOP 100 OKLAHOMA GAS PRODUCERS FOR THE YEAR 2009

Rank	Producer	Million Cubic Feet Produced	Percentage of State Production
78	The GHK Company	2,300,119	0.1%
79	Nadel & Gussman	2,200,267	0.1%
80	Sundown Energy, LP	2,177,082	0.1%
81	Encore Operating, LP	2,169,086	0.1%
82	Mack Energy Company	2,167,543	0.1%
83	Comanche Exploration, LLC	2,151,263	0.1%
84	Anadarko Minerals Incorporated	2,142,488	0.1%
85	Southern Bay Operating, LLC	2,008,683	0.1%
86	Crusader Energy Group, Inc.	1,913,199	0.1%
87	Marlin Oil Corporation	1,881,317	0.1%
88	BRG Petroleum, LLC	1,844,687	0.1%
89	Jones Energy Limited	1,837,992	0.1%
90	Petrohawk Operating Company	1,785,464	0.1%
91	Cornerstone Exploration & Production Company, LP	1,743,546	0.1%
92	Redwine Resources Incorporated	1,736,329	0.1%
93	Prime Operating Company	1,735,401	0.1%
94	Quest Cherokee, LLC	1,729,101	0.1%
95	Whiting Oil & Gas Corporation	1,646,787	0.1%
96	Bear Productions Incorporated	1,630,565	0.1%
97	BNK Petroleum U.S. Incorporated	1,576,936	0.1%
98	Blake Production Company Incorporated	1,560,268	0.1%
99	Brittany Energy, LLC	1,557,681	0.1%
100	Keith F. Walker Oil & Gas Company	1,524,309	0.1%
Total gas produced by top 100 producers:		1,633,751,279	97.65%
Total gas production by all producers:		1,673,032,396	100.00%

SOURCE: OKLAHOMA CORPORATION COMMISSION.





CHAPTER VIII
GIVING BACK

The Oklahoma oil and gas industry is unmatched in giving back to the communities in which their management and employees live and work. In the early days when huge oil fortunes were made in the oil patch, many Oklahoma oil men and their companies began contributing in unprecedented ways to make a better life for all Oklahomans.

E. W. Marland, W. G. Skelly, and Frank Phillips were among the most generous of the first generation of oil millionaires. Phillips donated the Pro Patria paintings to honor the heroes of World War I, the first fine art to appear in the State Capitol. Marland built the palatial Marland Mansion and provided funds for a hospital, golf course, and a dozen other city projects in Ponca City.

More than a century after hearty men often risked every penny they could accumulate to gamble for gushers, Oklahoma petroleum producers continue to contribute tens of millions of dollars each year to local community projects, colleges and universities, hospitals, and research institutions. A glance at the cornerstone of a new public building or the dedication program of an innovative new program or civic project finds the names of Oklahoma oil and gas companies and their owners and major investors.

Oklahoma's largest companies are energy related. The assets of a majority of the state's largest foundations are based upon fortunes made from oil and gas production. The face of Oklahoma would look incredibly different without the magnificent contributions of the petroleum industry.

The following is an aggressive attempt to name some of the major Oklahoma attractions and institutions made possible by either the generosity of oil and gas entrepreneurs and their heirs and foundations, or by a building or park being named for them to honor their giving back:

- Champlin Park, Enid
- Chesapeake Boathouse, Oklahoma City
- Chesapeake Energy Center, Oklahoma City
- Colcord Hotel, Oklahoma City
- Dean A. McGee Eye Institute, Oklahoma City
- Devon Boathouse, Oklahoma City
- Devon Energy Oil and Gas Park, Oklahoma History Center, Oklahoma City
- Devon Tower, Oklahoma City
- LaQuinta Foster Mansion, Bartlesville
- Gilcrease Museum, Tulsa
- Grissom Mansion, Seminole
- Charles B. Goddard Center, Ardmore
- Halliburton Field, Duncan
- Harold Hamm Oklahoma Diabetes Center, Oklahoma City
- Hefner Lake and Park, Oklahoma City
- Hefner Parkway, Oklahoma City
- Kerr Park, Oklahoma City
- Robert S. Kerr Lake, Sallisaw
- Robert S. Kerr Museum, Poteau
- Lafortune Park, Tulsa
- Mabee Center, Tulsa
- Mabee-Gerrer Museum of Art, Shawnee
- Marland Mansion, Ponca City
- McCasland Fieldhouse, Norman
- Jasmine Moran Children's Museum, Seminole
- Lake Jean Neustadt, Ardmore
- Lloyd Noble Center, Norman



Past recipients of the "Oklahoma Oil Man of the Year" award stand together. Shown are (from left to right) are William Keeler (1971), Dean A. McGee (1970), John E. Kirkpatrick (1974), Jack Abernathy (1978), P.C. Lauinger, Sr. (1969), and William Payne (1966).

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.



Above: John Mabec.

COURTESY OF THE OKLAHOMA HERITAGE ASSOCIATION.

Right: The Marland Mansion, Oklahoma's own "Palace on the Prairie" in 2005. The Marland Estate was formally opened to the public in 1976. Oklahoman George Nigh once wrote of the historic site, "I did not understand the mystique of it until I went there. I was not prepared for its grandeur, its history, its glory days, its bust days, nor did I truly understand the characters who lived, played, and visited there...it is a place so near, yet so far away."

PHOTO BY ROBERT BURKE.



Below: The founder of Sooner Pipe and Supply Corporation and owner of Bigheart Pipeline Corporation, Henry Zarrow is named the "Outstanding Oklahoma Oil Man" in 1981. He was recognized for his tireless work in the energy industry as well as his enormous contributions to both civic and charitable activities across the state.

COURTESY OF THE SOONER PIPE AND SUPPLY CORPORATION.





Top, left: Champlin Petroleum Company headquarters in Enid, Oklahoma.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Above: A 1959 advertisement for Halliburton appeared in the OIPA yearbook, *Independent Oil*.

COURTESY OF THE OIPA ARCHIVES.

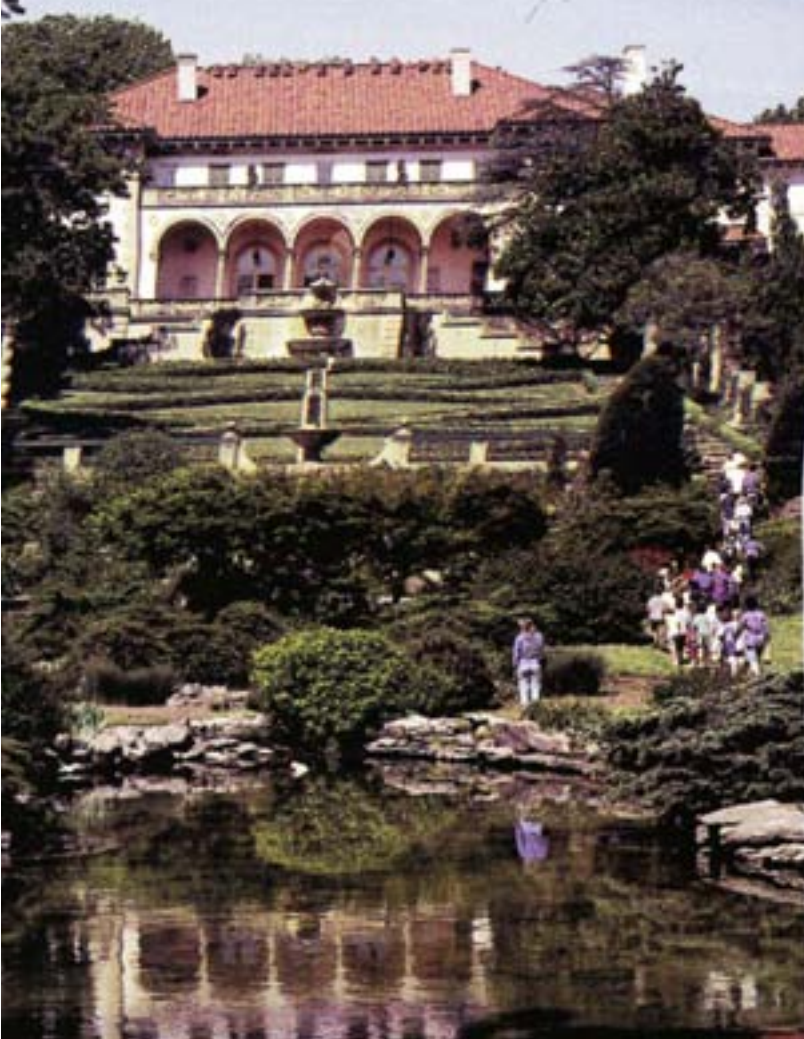
- Sam Noble Oklahoma Museum of Natural History, Norman
- Oklahoma Museum of Art, Oklahoma City
- Philbrook Museum of Art, Tulsa
- Philbrook Tower, Tulsa
- Frank Phillips Field, Bartlesville
- Frank Phillips Home, Bartlesville
- Gaylord-Pickens Oklahoma Heritage Museum, Oklahoma City
- Boone Pickens Stadium, Stillwater
- Pioneer Woman Statue & Museum, Ponca City
- Ponca City Cultural Center & Museum, Ponca City
- SandRidge Center, Oklahoma City
- Sarkeys Energy Center, Norman
- Sarkeys Law Center, Oklahoma City
- Science Museum Oklahoma, Oklahoma City
- Schusterman Center, Tulsa
- Schusterman Jewish Community Center, Tulsa
- Simmons Center, Duncan
- Skelly Bypass, Tulsa
- Skelly Field, Tulsa
- St. Francis Hospital, Tulsa
- Warren Place, Tulsa
- Woolaroc Museum, Bartlesville



Below: Thomas Gilcrease was the founder of the renowned Gilcrease Museum in Tulsa. This portrait of Gilcrease was painted by famous Oklahoma artist Charles Banks Wilson.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





Opposite: More than 1,500 people attended the dedication of artist Thomas Gilbert White's three memorial murals—the central panel is shown here—titled collectively Pro Patria, at the Oklahoma State Capitol on November 11, 1928. The paintings were a gift to the state from Frank Phillips.

COURTESY OF THE OKLAHOMA STATE SENATE HISTORICAL PRESERVATION FUND, INC.

Left: The Philbrook Museum of Art was originally the Italian Renaissance home of Tulsa oilman Waite Phillips and was completed in 1927. The 72-room home and surrounding 23 acres were given to the city by Phillips for the creation of a city art center in 1938.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

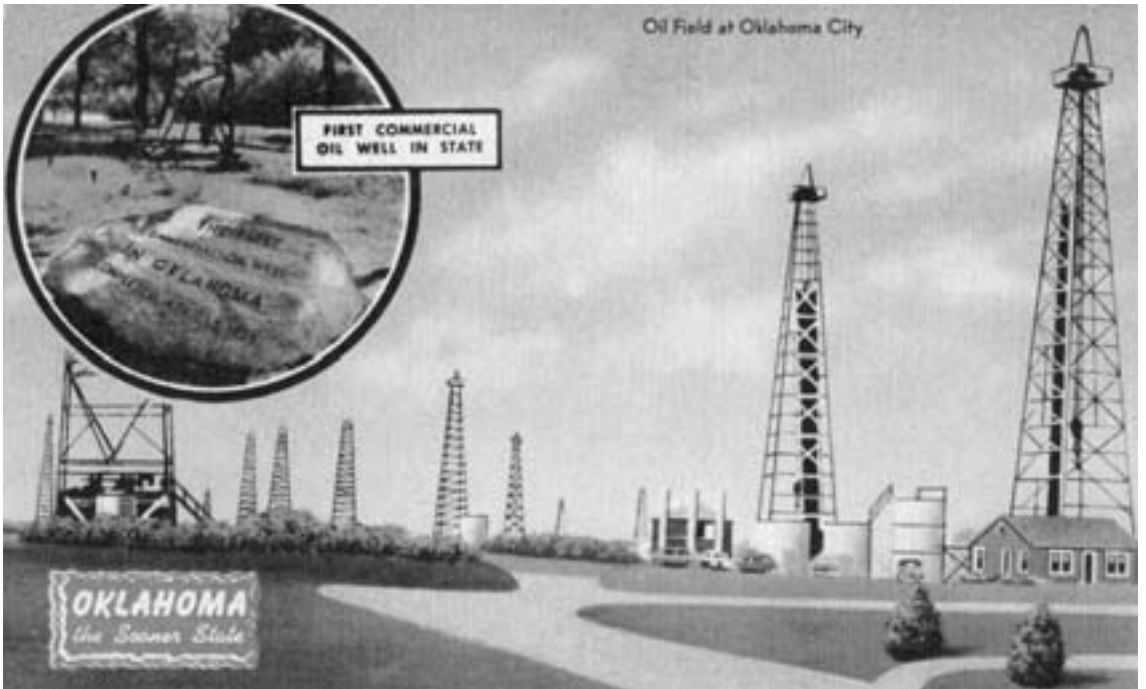
Bottom, left: Lou Kerr is the president of the Kerr Foundation, a philanthropic organization that provides funding and support to causes both locally and nationally.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Bottom, right: Ponca City's famous Pioneer Woman statue was commissioned by Oklahoma Governor E. W. Marland in the 1920s.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.





REMEMBRANCE - VOICES OF THE OIPA

“OIPA WILL BE 100 YEARS OLD...IN 95 YEARS!”

- A HISTORY TO 1959 -

(First published in *Independent Oil*, The OIPA Annual Yearbook of 1959)

When Roy G. Woods, an Oklahoma City transport executive, got into the oil business and began to face the inevitable problems of the independent, he began looking around for an organized answer. He was surprised to find that Oklahoma, a state which was a pioneer in the oil business and a state which was pioneered by an independent, did not have an association of independents while 27 other states did.

On December 15, 1954, Woods called a meeting to which some 40 of the state's leading independent oilmen were invited to discuss the possibilities of forming such an organization. The majority felt such an organization was needed and the money was raised that night to get started.

Since then the OIPA has added more than one thousand members to its roster and has become a vital and a vibrant force in the oil industry, both nationally and locally.

Chartered as a non-profit organization with the purpose to work at all times for the improvement of the oil and gas industry in the State of Oklahoma, and to do such things from time to time as may be deemed advisable to promote its general welfare within and without the State of Oklahoma.

On the day of its charter in February 1955, OIPA began to fight what was then H.R. 1 to restrict and limit imports. It also began a fight to pass the Harris Gas Bill.

On a state level the OIPA centered its attention on daily allowables, trucking, natural gas prices and the depletion problem.

These and other problems have faced the OIPA officers, directors and managers over the years and, in large measure, are still facing them in one form or another. Many of these problems have been solved and much positive programming has been completed, but much remains to be done.

With OIPA's Jim Fisk currently at the legislative helm, the association has been successful to date in holding off general tax increases in the current state legislature.

On May 5 the Revenue and Taxation Commission gave the “do pass” signal to H.B. 650—the depletion bill which will raise the provision to 27½%. The bill was opposed by Frank Ogdon, administration floor leader. The Mid-Continent Oil & Gas Association appeared and stated they did not care if the bill passed and they did not support it.

OIPA owes a big vote of thanks to Representatives Bagget, Bond (of Stephens County), Daniel, Fuller, Johnston and Nichols—all of whom were eloquent in their support of the bill. Because of previous administration objections, this will need the active support of every OIPA member.


The eminent domain bill for salt water disposal is now being perfected by a subcommittee in the House consisting of Jim Arrington, Jim Bullard of Duncan and Bill Shiley. This legislation will probably be passed in this session. Recently the bill doing away with the defense of contributory negligence received support and OIPA's board of directors threw the full weight of the association against this bill. The bill was defeated. Another OIPA-sponsored measure designed to give the conservation fund additional monies is coming into line. A blow to OIPA members is a bill which has been passed out of committee which a “do pass” concerning unemployment benefits. This will cost employers in general the sum of \$400,000 in administration costs alone. It is hoped that a modification can be effected before this bill goes to the Governor for signature.

As the legislature goes into its final days, OIPA members are being urged to continue to support their legislators holding the line on a tax increase for the petroleum industry.



COURTESY OF THE DEVON/DUNNING
PETROLEUM INDUSTRY COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.



 Above: The oil fields at Oilton in the mid-1910s.

SILLS PHOTOGRAPH. COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Top, right: A burning oil tank in the Okmulgee field around 1913.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom, right: A postcard depicting an oil gusher at Oklahoma City.

PHOTOGRAPHER RAY JACOBY COLLECTION, COURTESY OKLAHOMA HISTORICAL SOCIETY.



In the five years since the OIPA idea germinated, two men have held the reins. They are Roy G. Woods, who served two terms as president and who still serves on the OIPA board and Paul R. Schultz, president of Blackwell Oil and Gas Co., Tulsa, who is now serving his third term. OIPA can look at its present board of directors and to the men who comprised the board over the past years and say without fear of contradiction that it has and has had “distinguished leadership.”

OKLAHOMA AND OIL'S FIRST CENTURY

By Paul R. Schultz, 1959

(First published in *Independent Oil*, The OIPA Annual Yearbook of 1959)

The oil industry is 100 years old and Oklahoma's oil industry is 62 years old. These are significant and impressive figures, but even more significant is the fact that the oil industry was started by an independent and Oklahoma's first oil well was drilled and completed by an independent.

Just how important is the independent oil man? What is his value to his industry, his community and his fellow countrymen? The answer to these questions could not be told in a single volume. But...

...when Col. Edwin Drake struck oil 100 years ago he also struck the spark that tingled men's backbones around the world, giving them the fire and courage that it takes to

create the undaunted type of spirit that comprises a true pioneer.

Away these men went...out into the field... into the valleys...over the mountains...into



the swamps and forests and wherever else their “spirit” led them...to build the most fabulous industry the world has ever known...in a few short, action-packed and daring years.

Fired with imagination, these independents characteristically made short work of decisions, threw caution to the winds at times and threw the dice that cast the die that built an industry.

In Oklahoma they found Glenn Pool, Cushing, Burbank, Healdton, Seminole, Fitts, and other prolific fields. In East Texas, Dad Joiner found that fabulous field. The list is long and the list is impressive.

Today the independent drills 78% of all wildcat tests in the United States, his ingenuity develops better drilling techniques and equipment improvements. He invented water-flooding and dozens of other productions methods; he employs hundreds of people in local communities everywhere, pays his taxes and spends his profits locally and, by and large, helps his community think independently in civic matters.

Because every piece of oil legislation is a personal matter with him, he is not only constantly alert to this legislation but, because he is also a local citizen with local interests, he is also alert to any legislation affecting his community and his state and he carries this interest to the federal level where he makes his voice heard. The independent oil man is

an asset to himself, to his community, his state, his nation and, above all, to his industry. He is a man of action, a man of imagination and a man with courage.

He has helped build the fabulous oil industry of Oklahoma...where petroleum values constitute over 91.7% of mineral wealth...where oil payrolls are 20% of total state industry payrolls...where petroleum



Above: The Cushing oil field around 1920.
CLARENCE JACK, COURTESY OF THE CHESTER R. COWEN COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Pitch black oil flows from an uncapped well in the Cushing Field near Tulsa, 1921.

E. C. KROPP CO., COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





Above: An oil loading rack at Drumright.
 COURTESY OF THE IRA M. SPANGLER COLLECTION,
 COURTESY OKLAHOMA HISTORICAL SOCIETY.

Below: The Prairie Oil Company built a
 pump station north of Drumright to pump
 oil to the Chicago area.
 COURTESY OF THE IRA M. SPANGLER COLLECTION,
 OKLAHOMA HISTORICAL SOCIETY.

taxes account for 40% of total state taxes...and where 47% of all land area is either leased or productive.

OIPA - 1961

(First published in *Independent Oil*,
 The OIPA Annual Yearbook of 1962)

As 1961 ended, the oil industry in Oklahoma reached the "retirement age" of 65—but it was far from retiring—in fact, both the oil industry and the OIPA racked up impressive years.

The OIPA gained stature as it became the recognized spokesman for the entire oil industry in Oklahoma in 1961. It was recognized as the only organization working full time and exclusively for the industry...not for just a few individuals.

During the last legislature OIPA sponsored and obtained passage of bills which (1) exempt the oil man "as a broker-dealer" from the Securities Act when selling parts of oil and gas leases and (2) granted rights of eminent domain in securing rights-of-way for salt water disposal purposes.



NEARLY FIFTY
YEARS AGO

By Wayne E. Swearingen, 2004
(Archived letter to OIPA)

OIPA had only recently been formed when I joined. Maybe 1955. Roy Woods was the first chairman.

In 1971, I had served as Chairman for only a few weeks when the Oklahoma House passed, with a huge majority, a Gross Production Tax of 15%. Yes, 15%. That was a “wake-up” call for sure! We in OIPA and the Mid-Continent had been on “cruise control” politically.

We in the industry thought we had earned the respect and good will of the Legislature...in those days, we had only part time representatives of OIPA and Mid-Continent roaming the halls of the Legislature. I found, to my dismay, that many Legislators did not know or even much like the oilie lobbyists!

The late Ed Smith told me to crank up the OIPA effort and advertise and he would see that we could cover the expenses. The late Jack Abernathy got Mid-Continent organized as well. We got the help of a real leader in a very young Representative named David Boren!



Finally, after two months of intense effort, we got the Senate to settle for a seven percent GPT. That was up from five. Ex-Governor Bartlett's Blue Ribbon Tax Committee had only recently reported that the producers could “stand” seven percent GPT. So we are dead in the water trying to stay at less than seven.

I don't remember the OIPA budget that year, but I spent it in two months and I sure remember passing the tin cup to get out of debt.

Now fast forward 30 years. We have a superior OIPA staff, top to bottom; good relations with the Legislature, Oklahoma Corporation Commission, Mid-Continent, NARO, Marginal Well Commission, IPAA, energy advocates, and the OERB...

And I plan to continue to teach and preach about how important adequate energy is to a free and prosperous America for as long as I have breath. God willing.

THE FORMATION OF
OKIEPAC AND THE
WILDCATTER CLUB

By Harrison Townes, 2004
(Archived letter to OIPA)

In the late 1970s a drilling boom was on in Oklahoma—natural gas had finally been deregulated and the price for it was rising



Above: Teamwork in the field.

COURTESY OF THE WALTER M. SARTAIN, JR. COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

*Below: This 1959 advertisement appeared
in the OIPA yearbook, Independent Oil.*

COURTESY OF THE OIPA ARCHIVES.



steadily. This boom, however, revealed how weak politically the OIPA was—various bills were being introduced in the legislature adverse to independent producers, and we not only could not stop them in committee, but also lost big time in defeating them when they came to a vote.

Steve Kelley had been hired shortly before this as our lobbyist and Executive Vice President, to replace the retiring Hal Gibson. The OIPA office was still in Tulsa.

When I became President in 1980, Steve and I decided that we had to build support in the Legislature, and the best way to do that was to start contributing to legislative races important to us. In those days, candidates remembered who gave them \$50. Steve and I vowed that we were going to change things so that someday OIPA would have clout with the politicians in Oklahoma, particularly in the Legislature.

Since I had been involved in forming a PAC elsewhere, we decided that this was the way to go, and we formed the Oklahoma Independent Energy PAC (OKIEPAC). Furthermore, we decided to start a Wildcatters Club to fund the PAC, and create at the same time an organization similar to the Roughneck Club of IPAA. It was decided that each Wildcatter should contribute \$500 per year to the PAC. We had to be more careful of the rules for the PACs then, even to not furnish office supplies or space, or even postage—it all had to come out of the PAC funds—and only personal checks were acceptable. I wound up the first President of the Wildcatters, while Frank Young agreed to be Secretary. I still have the original Wildcatter certificate in my office...OKIEPAC contributions were to be focused on legislative races only, leaving statewide races for another time.

Soon we had 20 or 30 members. Our first meeting was a dinner-dance at the OIPA annual meeting at Shangri-Law. We used one of the meeting rooms in the old lodge and left the door open, and the band was loud. Many OIPA members came by to see what all the noise was about. I remember hiring the band, and immediately after the dance they wanted their money. I had to give them a personal check.

It came apparent that most OIPA members did not like a special separate function for Wildcatters, so the next year we opened the



OIL FIELDS, NEAR TULSA, OKLA., "THE OIL CAPITAL OF THE WORLD"

Wildcatters dinner to all OIPA members and exhibitors. Membership was slow to increase, and the bust that hit in the middle of the 1980s stopped growth altogether for a while; nevertheless, look where we are today...

OKLAHOMA'S OIL INDUSTRY MAKES GAINS IN 1961

(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)

Reversing the trend of the 3-year recession period the Oklahoma petroleum industry turned upward in 1961, and the forecast is for continued growth through the Surging



Above: "Tulsa, the Oil Capital of the World."

COURTESY OF THE STATE OF WEST VIRGINIA CULTURAL CENTER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: This 1959 advertisement appeared in the OIPA yearbook, *Independent Oil*.

COURTESY OF THE OIPA ARCHIVES.



Sixties. Due to an increased drilling and development program, the Sooners increased recoverable reserves of total petroleum liquids 120,700,000 barrels to a near-record of 2,630,000,000 barrels. The significant factor of this increase is that crude oil reserves increased for the first time in three years...

Crude oil production averaged 523,274 barrels daily, or 1,174 barrels daily less than in 1960. Total value of the oil was \$558,610,310—of which one-eighth went to landowners and royalty owners, and 5 percent of the value as state gross production tax.

Natural gas continued to set records in all divisions. Reserves gained 989 billion cubic feet to 18,300 billion, all all-time high, and 8.76 percent of the United States total.

Gas production increased 6.03 percent to 874,000 billion cubic feet, of a gross value of \$109,900,000, with wellhead prices ranging from 7 ½ to 17 ½ cents per thousand cubic feet. New pipelines tapped the Panhandle and western counties; more extensions now being constructed.

Wildcatters opened 52 new gas fields and 10 condensate fields to give the big boost to the increase in reserves. New gas wells in established fields totaled 462, against 369 drilled in 1960.

Drilling in Oklahoma was responsible for reversing the trend throughout the United States, for Oklahomans completed 5,845 wells, or 1,043 more than in the previous year. The United States net gain was only 211 wells. To complete these wells, drilling contractors from Texas, Kansas, Louisiana and Arkansas joined the Oklahoma fraternity.

Of total wells completed, 2,820 produced oil, 79 got condensate, and 514 were gassers; there also were 1,657 dry holes and 775 service wells. While this was an increase in productive wells, it also was a sharp gain in dry holes.

A feature of the drilling program was that 16 wells were completed to depths of 12,500 feet or more, and 6 of them went below 15,000 feet.

Grady County, late in the year, grabbed the distinction of having Oklahoma's deepest producing well. It was the Mobil Oil Co.'s No. 1 Craddock, in the multi-zone Chitwood Field, with production from 16,669 feet. The



Opposite: Oil wells in Lake Texhoma.

COURTESY OF THE DEVON/DUNNING
PETROLEUM INDUSTRY COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

Left: At the time of this photography, the Rumberger No. 5 located about five miles south of Elk City was Oklahoma's deepest well at 4 ½ miles down and was the world's second deepest well. It was drilled by a giant Helmerich and Payne rig for Shell Oil Company.

BAXSTONE PHOTOGRAPH, COURTESY OKLAHOMA HISTORICAL SOCIETY.

previous record was at the British American Oil Producing Co.'s No. 1 Krieger, in the Stephens County sector of the Knox-Deep Field. It was completed in 1957 at a depth of 16,546 feet.

The state's deepest hole is at the Shell Oil Co.'s No. 5 Rumberger, in the Elk City Field of Beckham County, which was dry at 24,002 feet in 1959; at one time it was the world's deepest test.

Wells in these depth ranges frequently carry a cost tag of more than \$1 million.

NEW GAS PROVINCE CHANGES ECONOMY OF EASTERN OKLAHOMA

(First published in *Independent Oil*, The
OIPA Annual Yearbook of 1962)

The economy of east-central Oklahoma is changing. Lakes, resorts, registered livestock, revived agriculture, good roads and highways, dogwood trails, foliage tours, and Big Cedar windings?



Above: Employees of the Marland Oil Company gather with E. W. Marland (far back row, center) on the steps of his home on Grand Avenue in Ponca City around 1918.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Roughnecks raise a bit on the derrick table at a well in Oklahoma City.

COURTESY OF THE OKLAHOMA CITY CHAMBER OF COMMERCE COLLECTION, COURTESY OKLAHOMA HISTORICAL SOCIETY.



Yes; all these, but more important a vast new natural gas reserve is in the making. New gas fields are being found, and the search will be intensified now that the Arkansas Louisiana Gas Co. has announced plans for a major pipeline to extend from Centrahoma into northwestern Arkansas and give the new field a ready market.

Last year the oil-gas industry drilled 45 wildcats in eight counties to discover 12 new fields; at the same time it drilled 44 tests to get producers in proved areas. Engineers are not ready to release forecasts on proved reserves,

but the fact that Arkla is spending some \$20,000,000 to build pipelines and facilities is evidence that the McAlester Basin has arrived.

Gas production is not new to the 8-county province. The Red Oak Pool in Latimer County was discovered in 1910; three years later the Quinton Field was proved in Pittsburg County. Both of these fields were shallow, but both have developed into highly productive areas.

Back in the 1930s, the Marland Oil Co. did extensive geological work across the east side of the state, extending from Greater Seminole fields to the mountain uplifts on the Arkansas state line.

Five years ago the big push started by crews of land-men. A lease blanket was thrown over some 4,000,000 acres, a play which cost an estimated \$15,000,000. Today's lease rentals amount to \$1 per acre per year.

Two years ago drillers found 13 new fields out of 35 wildcat ventures and 21 producers out of 56 development wells. That campaign pointed the way, for most of the wells were deep. At the end of February, there were 30 active drilling wells in the eight counties— 11 of them wildcats—and most of them contracted for deep depths.

Contractors estimate they are spending \$600 daily in the local community for each deep well; they need housing for 15 to 18 men per rig. Service and supply companies have moved in and are settling down for a long stay.



The development is beginning to show results. The local farm boys now are called “boll weevils,” “swampers,” and “roughnecks,” and at wages which lift them out of the common labor bracket. The new payrolls are being spread into every town, and business is on the uptrend.

Wilburton, which long has pointed with pride to its state college and its location as a crossroads of business, now finds itself in the middle of the basin, surrounded by gas wells and gas fields.

Since the big play started, bank deposits have gained \$900,000 to a record \$3,500,000, and a new bank building has been erected. Eighteen new business buildings dot the city, and there are new cafes, motels, shops and businesses sprouting. There is a local industrial foundation which will help finance new business and new payrolls.

School buildings are bulging; high school enrollment is up 100 over last year, and the grade schools are adding more and more youngsters as new families move in and find a place to live. The high school has been upgraded with new home economics, science and language departments. Utilities companies are working on a 5-year expansion program... but chances are the oil-gas development program won't be completed in that short a time!

OKLAHOMA'S EARLY
PRORATION ORDER
PROTECTED PRICES
(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)

The Corporation Commission of Oklahoma was making history in oil conservation long



before the industry had anything resembling a comprehensive statute to prevent waste. Further, it was doing it without the advice of a battery of lawyers, engineers or expert witnesses.

The industry in the early days operated under the so-called “law of capture”—the fish is yours if you catch it! Too, the commission, as well as the industry, was cognizant of the price of crude oil, a matter which cannot be considered under today's conservation laws.

One of the early commission orders is No. 829, in Cause No. 2041, effective July 1, 1914, and all it did was to exempt three pipeline companies as common purchasers in the Cushing district. Thus, it became a major proration order.

The order says the commission acted on the application of “the oil producers and others,” but it did not name the producers or



*The 1st National Bank Building in
Oklahoma City.*

MENERS PHOTO SHOP PHOTOGRAPH,
COURTESY OF THE BARNEY HILLERMAN
COLLECTION, OKLAHOMA HISTORICAL SOCIETY



An oil derrick nears completion on the Burford addition at Fallis around 1912.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

the others. Further it was not specific as to what field or fields other than in the area “known as the north and northeast section of Oklahoma.” However, later in the findings, the Cushing Field was named.

It did list the sources of supply. In fact, it noted “the Layton and Wheeler Sand, which was looked upon as a menace to prices last December, has decreased in production very rapidly.”

Primary concern at the time of the order was a potential production of 300,000 barrels daily and a market of about 200,000 barrels. Drilling was still under way, and the price of crude bobbed like a fishing cork.

Describing the field, the commission said: “This is the greatest high-grade oil pool that has been discovered in the history of petroleum. It is the judgment of some experts, considering the thickness of the sand, that it contains from twenty-five to fifty million barrels of high-grade oil, depending upon whether or not careless drilling should injure the field by flooding it with water or foreign substances.” (That may have been good guessing for those days, since to the end of 1961, the Cushing Field has produced 415,795,000 barrels of oil, and it still has a reserve of 39,202,000 barrels. Last year the production totaled 2,537,000 barrels.)

While the order did not prorate or restrict the production—which was being done on some leases by voluntary action—it relieved the Texas Company, the Gulf Pipe Line Company of Oklahoma, and the Prairie Oil & Gas Company of making connections to new wells for four months. It named a committee composed of B. B. Jones, chairman; H. F. Sinclair, John H. Markham, Murray Dean, and W. H. McFarland to administer the order with assistance from A. E. Watts, field umpire.

In its closing paragraph, the commission noted: “Inasmuch as Providence has smiled so bountifully upon the producers of the Bartlesville Sand in the Cushing Field, we believe that they can well afford to sacrifice some personal advantage which, to some extent may have been secured by their own diligence and conservation, in order that this great industry might not fall into contempt by reason of the destructive production of crude petroleum.”

The order was signed by J. E. Love, chairman; A. P. Watson and George Henshaw, commission members.

ELK CITY BEGINS NEW LIFE SPAN

(First published in *Independent Oil*, The OIPA Annual Yearbook of 1962)

Late this year the Elk City multi-zone oil-gas field will enter its second phase of life and add an additional 15 productive years to its span. But before it starts this phase, the Panhandle Eastern Pipeline Co. will spend \$16,700,000 to construct another major gas pipeline system to serve fields in western Oklahoma.

This giant among Oklahoma fields is located just south of Elk City on the Beckham-Washita county line. It was discovered by Shell Oil Co. with a deep, expensive, but small well in November, 1947. A year later, however, major production was found by the company.

Unconformities in the Hoxbar formation yielded crude oil, natural gas, and condensate, cresting a complexity of drilling and completion methods. Since the state conservation law recognizes different zones as separate sources of supply—equivalent to a field within a field—the corporation commission's orders also were complex.

Although Shell built a pipeline from the field to Cushing and increased the state's oil market by 8,000 barrels daily, there was no market for the gas. At one time an estimated 175,000,000 cubic feet of gas was flared daily; airplane pilots reported the flare visible 100 miles away.

This was stopped, however, in November, 1950, when the commission approved utilization of all productive leases in the field, with Shell as the operator. A year later more leases were added to the unit. Under unit operation each operator and royalty owner shares proportionately in total production of the field.

Gas venting and flaring was stopped, since Shell constructed a multi-million dollar plant and system for returning all the gas to the producing reservoir.

In June, 1953, A. J. Galloway, vice president of Shell came out from New York to address a citizens' group at Elk City. He pointed to the \$55,000,000 investment in the field, to the great saving of both oil and gas, and clinched his remarks with:

"Today this is a major oil field and will continue so for a number of years. When the oil and gas liquids have been recovered, the pool becomes a gas field because of the gas that we have put back in the reservoir. We estimate it will take another 15 or 20 years to produce all of the gas that we have put back."

To date the field has produced more than 55,540,000 barrels of oil and liquids, and the liquids reserve is estimated at an additional 54,600,000 barrels—nearly half of the initial reserve. Last year, 293 wells produced 1,398,000 barrels of liquids.

The Federal Power Commission recently approved a contract between Shell Oil and the Panhandle Eastern for sale of 701.5 billion cubic feet of gas over the next 15 years at a price of 17.5 cents per thousand cubic feet. In filling this order, Shell will continue to produce the oil, strip the gas of its liquid contents. Production of liquids may be greatly increased since production will depend upon the demand for the gas.

To take this gas to market, the Panhandle Eastern will spend \$15,700,000 to build a new pipeline from the field. It then will spend another million dollars to provide facilities for connections in other fields along the line's route. More than one-third of these expenditures will go for wages and supplies in communities along the route of the pipeline system.



ENID OPENS DOORS
TO EXPANDED OIL PLAY
IN NORTHWEST

(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)



"The largest oil gusher in the world...
50,000 barrels of oil a day...200 million
feet of gas."

COURTESY OF THE CHESTER R. COWEN COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

The town-boosters up at Enid threw a dinner April 24th to express their appreciation of the oil industry, and tell what it means to their city. But, there were not many of the stalwart souls who established the industry in Garfield County around; they now are operating in an area where every well is a gusher and the city streets are paved with gold.

Enid was one of those cities which started without a derrick in sight, and where “roustabout” and “roughneck” were naughty words. But Enid’s business men were “dabbling in oil” clear across northern Oklahoma and southern Kansas; they did all right, and brought their profits back to the home town.

Then came the Garber Field; a wild gamble started and the unsavory element which follows booms moved in. Enid was far enough away that it could handle the legitimate business and ward off those folk who operated in the twilight zone and plied their trades after dusk.

H. H. Champlin, hardware dealer, banker, landowner, and civic worker, would have liked to move the boom to the edge of Enid, and he was supported by Milt Garber, member of congress, and what Sinclair Lewis called “a go-getter.” Both of these men owned land within scope of the Garber field, so they teamed up and Champlin started a refinery at Enid, later made oil history in the great plains—plus a bit of state history.

Charles Knox got into the play, with a small but powerful integrated company, and he was followed by T. W. Eason with another integrated company. And at the same time Main Street was building and props were being put under Phillips University.

George Failing, who made his first money in an oilfield machine shop—and also repaired



farm machinery—had an idea for mounting a small, compact drilling rig on a truck chassis, with a dual-power unit. Fellows in the field referred to it as “George’s Go-Devil,” and those in town called it “Failing’s Folly.” But, in spite of what folk called it then, today the Failing rigs are used wherever holes are dug.

Those men and others put the foundation under Enid’s oil business, and opened the way



Above: The Garber oil field in the 1910s.
COURTESY OF THE JOHN DUNNING POLITICAL COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom, left: The Hoy Oil Well struck black gold at 1,130 feet near Garber, Oklahoma, on September 9, 1916.

ATWOOD PHOTOGRAPH, COURTESY OKLAHOMA HISTORICAL SOCIETY.

Bottom, right: Walter M. Sartain, Jr. (right), stands near a Champlin Gasoline sign in the 1930s.

COURTESY OF THE WALTER M. SARTAIN, JR., COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





city is near the eastern rim of the great Anadarko Basin that covers part of four states, where one of the nation's largest gas reserves has been found.

The discoveries in Kingfisher County during the past few years have spread out like a blanket. Last year new oil was found in southern Garfield County, and month by month the rigs are fanning out to the north, west and southwest.

The city's trade area has been extended through Kingfisher County to El Reno, to Watonga and Blaine County, to Fairview and Ringwood in Major County and beyond all this is northern, western and northwestern Oklahoma.

This expanse was what L. S. Youngblood had in mind when he dedicated the Youngblood Hotel in May 1930, with a big party. "We thought we were just a step ahead of the Basin play at that time," he commented, "but it looks like we were 30 years ahead of it."

for the second generation of builders, with such men as Charles G. Peppers, Carl Ford, Carl Gungoll, John Wilver, Lawrence Youngblood, and others who have followed the section lines and pipelines to far distances.

Today the army of rumbling rotaries and the mud hogs are moving toward and around Enid in the greatest development spree since discovery of the Oklahoma City Field. The

UNITIZATION IN OKLAHOMA

(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)

For the next two or three generations, Oklahomans will be living off the oil fields which were discovered since World War II, just as many Sooners today are living on the



Above: "An iceberg in the oil field" formed as oily salt water froze over a leaky well's "Christmas Tree."

COURTESY OF THE IRA M. SPANGLER COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

Below: "Ready for overland transportation" at Drumright around 1914.

COURTESY OF THE IRA M. SPANGLER COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.





Right: An aerial view of a derrick.

BRYAN STUDIOS PHOTOGRAPH, COURTESY OF THE ALBERT D. BRYAN COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Mid-Continent Oil Refinery and the skyline of Tulsa.

COURTESY OF THE ROBERT RIGHTS COLLECTION, OKLAHOMA HISTORICAL SOCIETY.



income of fields discovered just after World War I.

But the income in the future will be somewhat higher and more stable than that from the pre-1945 fields, for operating and production methods have changed and the get-rich-quick tendency has been overcome. Prior to Pearl Harbor, the life expectancy of an

oil field was 20 to 25 years; today it is double that and at least one Oklahoma field is expected to be productive until the year 2030.

This longer life has been brought about by a conservation law and the adoption of the so-called "unit operation" law, both pioneering statutes for the oil industry. The conservation law—sometimes called the "proration" law—

dates from 1917, but was amended in 1933 to become a model for all oil-producing states and some countries. The unit operation law was adopted in 1945, and amended in 1951.

The Unit Operation Law permits that all leases in a field may be pooled and the field operated as a single lease, by one operator or company. Interests of all parties, including landowners and royalty owners, are included and all share a proportionate part in the revenue from the field. But before unit operation can be started, all contracts and other pertinent data must be approved by the Corporation Commission after an open hearing.

Pooling is employed for two prime purposes in Oklahoma: One for pressure maintenance in the reservoir, whereby all natural gas is returned to the pay zone; this has been termed "the ultimate in present-day conservation." A second purpose is to permit operators to inject water into the oil formation to push out the remaining dribbles of oil, and thus increase the total oil recovery. This is called "water-flooding" and is practiced in several hundred old fields. (In March some 33,000 wells in these fields produced 164,000 barrels of oil a day.)

First major fields to be put under unit operation were the West Edmond Hunton Lime Pool in Oklahoma, Logan, Canadian and Kingfisher counties, operated by Phillips Petroleum Co. Both cases were contested by minority interest holders and some royalty owners; the commission's hearings extended over more than 30 days in each case, but in late 1957, gas was being put back into the ground.

At this time there are 33 unit-operated pools, with 3,445 wells, producing 54,077 barrels of oil a day or about 10 percent of the state's production. Each year a few more unit pressure-maintenance pools are added.

By the end of this year, the multiple-zone Elk City Field in Beckham County, which has been unit-operated since 1950, enters its second phase of life as a gas field, with a life expectancy of at least 20 more years. The field has produced 55,540,000 barrels of oil and liquids, and still has 54,600,000 barrels of oil and 701.5 billion cubic feet of natural gas left in the reservoir.

The next major unit operation for the state will be started this summer, when the Bromide Sand zone of the Knox-Deep Field on the Grady-Stephens county line begins its new life. British American Oil Producing Co., its discoverer, will be the operator for the seven leaseholders in the 8,690-acre field.

This will be the world's deepest pressure-maintenance unit—at 15,000 to 16,000 feet. Three of the present 10 wells will be used to inject gas back into the reservoir after it has been stripped of its condensate and propane. Under present methods of production, the field would yield about 38.5 billion cubic feet of gas and 6,800,000 barrels of condensate. Under unit operation the recovery will be increased to 186 billion cubic feet of gas and 36 million barrels of liquids, to give the field a life expectancy of 75 years!

SIX NEW PLANTS TO BOOST STATE'S GAS- LIQUIDS RUNS

(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)

Due to natural gas development in western counties, Oklahoma this year will increase its gas-processing capacity 191-million cubic feet



COURTESY OKLAHOMA HISTORICAL SOCIETY.





A postcard shows the oil refinery scene and a section of the Catalytic Cracking Division of Continental Oil Company at Ponca City, Oklahoma.

COURTESY OF THE DEVONOUNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

a day, following an increase of 203.1 million in 1961. This means that the venting of natural gas will be curbed, and more wells will be given a market for both gas and liquid products, such as propane, butane, and LP gas.

The new increase in capacity will be at six plants now on the line since first of the year or due to be completed by end of the year, says the *Oil and Gas Journal* in a new survey of the nation's gas-processing industry.

At start of the year, Oklahoma had 74 plants with gas capacity of 3,158.1 million cubic feet and 4,179,889 gallons of liquid products daily. New plants will increase the number to 80, with capacity of 3,349.1-million feet of gas and to 4,499,889 gallons of liquids daily.

Construction of these plants has been accompanied by laying of a network of pipelines to recently-found fields, and the building of railway loading racks for shipment of the liquid products. As the gathering lines are extended to the isolated new fields, there will be an increase in development drilling.

Thus, Oklahoma enhances its position as the third gas-producing state in the 'Union, being exceeded only by Texas and Louisiana; it is followed by New Mexico and California, neither of which is expected to overtake the Sooner state.

This growth parallels the production of natural gas which increased 3.9 percent in

1961 and furnished 8.61 percent of the total United States output. The state added two new gas fields and 462 new gas producers in 1961, then followed with 12 new fields and 182 new wells in the first quarter of this year.

Kingfisher County, which has been pacing the state's oil development for the last two years, forges to the front this year with three new processing plants.

Humble Oil & Refining Co. is stepping up runs this month at its new Hennessey plant, which has capacity of 77-million feet of gas and 240,000 gallons of liquids daily. Continental Oil is edging toward capacity at its new Hennessey plant, which has capacity of 30-million feet of gas and 44,000 gallons of products daily. Later this year, Pan American Petroleum will go on line at its Okarche plant, with capacity of 24 million feet of gas and 3,700 gallons of products daily.

Carter County got its sixth plant this year when Shell Oil Co. started up a unit with capacity of 7 million feet of gas and 14,000 gallons of products daily. Love County gains its second plant this summer when Texaco, Inc., starts its Enville Pool plant, with capacity of 23 million feet of gas and 23,300 gallons of products daily.

The state's largest gas-producing operation is the Garvin County Plants System, operated by Warren Petroleum Corp. for companies in the Golden Trend Area, with throughput of

356-million feet of gas a day. This three-plant complex not only strips the gas of its liquid products, but returns much of the residue gas to the producing reservoirs of several fields for pressure maintenance to increase the oil recovery.

NO BOOM-BUST FOR
KINGFISHER'S NEW
OIL FIELD

(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)

Oklahoma has produced another giant oil field—without boom or bust or much publicity. And when the present development is completed, Kingfisher County will be reaping the benefits for many years without over-built communities or bevy bonded indebtedness.

It was in 1958 that Jones & Fellow Oil Co. drilled a discovery well at 4 ½-miles north of Dover to start the far-flung exploration that now covers most of the county, extends into Garfield County on the north, and has opened the way to a new development in Blaine and Canadian Counties.

Subsequent drilling took the growing rotaries and mud-hogs to the edge of Hennessey to later connect the two fields.

The Dover-Hennessey Field had more than 325 completed wells at the end of 1961, with less than a dozen dry holes. A new well every day has been the record since first of the year. For nearly two years this has been the largest concentration of rotary drilling rigs in the world...

Increasing wells and production soon surpassed pipelines and transportation facilities. Early this year, the Continental Oil Co. had to restrict oil purchases until new pipelines could be built. Gas pipelines have been slow in coming, but by the end of this year there will be lines and gasoline plants to halt the venting and flaring of this precious fuel.

With an estimated reserve of 500,000,000 barrels of oil, Dover-Hennessey took "giant" status in 1961, although total production to date has been only 3,500,000 barrels. The field takes its place along with Oklahoma City, developed in the 1930s, and with West Edmond, developed during World War II.

But unlike either of these fields, the Dover-Hennessey development has been within the bounds of conservation. Many Oklahoma City wells were drilled on tracts of a few city lots, with only a few 40-acre locations. West Edmond's pattern was held to one well to 40 acres. In Kingfisher County, there is one well to each 80 acres.

New drilling technique and new methods of completing wells have been developed in the field. Instead of large-diameter holes, drilled with huge bits, contractors are using 24-inch bits—with 56 carats of industrial diamonds per bit!—to cut smaller and straighter holes, and permit production of oil and gas through small tubing. Lighter rigs and faster drilling have resulted so that contractors now are drilling four wells in the time once required for three.

Hennessey bears the brunt of taking care of the several thousand workers in the new area. It had no vacant houses when the first crews went in; its schools were adequate for the community; its business district was limited. But there was no limit to the enthusiasm which Hennessey citizens met the situation.


Trailer groups were set up—there's a trailer hotel and a trailer supply house! Two residential additions were started; downtown expanded and utility crews worked overtime to serve the new residents.

Hennessey civic leaders studied the "boom and bust" developments of earlier oil communities in Oklahoma, and they decided they didn't like the idea. So the city grows and expands without big bond issues, heavy mortgages, or mushroom growth. When the drilling and service crews complete their last wells, the supply houses will be left, and the community will be better for the experience, for it will have lasting gains.

GREAT OIL AREA GOT ITS
NAME BY AN ACCIDENT
(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1962)

Fifteen years ago a new name was sprung on the Oklahoma oil industry, purely by chance, but it caught on quickly and has gone down in petroleum history.



 Above: Oil workers in February of 1932.
COURTESY OKLAHOMA HISTORICAL SOCIETY.

Below: Charles E Noble Gasoline Plant #4
in Washington County.
COURTESY OF THE WATKINS COMMUNITY MUSEUM OF
HISTORY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

It was “The Golden Trend,” a name given to a chain of oil fields through Garvin and McClain counties. To scores of independent operators who were not afraid to work and gamble it was a golden opportunity, and the rewards were great. It attracted new risk capital to Oklahoma; it strengthened the foundations of a half-dozen communities; it changed the regional economy from alfalfa and broomcorn to oil and natural gas.

The oil development followed a north-south trend from the Arbuckle Mountains to Oklahoma City, along the eastern rim of the Anadarko Basin. Passengers on night planes marveled at the blinking lights, spotted here and there with the neon rays on at the crossroads, and the flares of venting gas. It was likened to a chain of sparkling gems.

Twenty-five pools had been discovered on the Trend before it got its name, and this is how it happened: to illustrate a review of the development, an outline map of Garvin, McClain and Cleveland counties had been drawn, designating location of the fields.

The Cleveland County fields did not tie into the chain, thus that part of the map was blank. “You can’t do that,” argued L. P. Thompson, chief artist of *The Daily Oklahoman*. “You’ve got to fill that hole with something.”

Mexico had had its Golden Lane early in the century; a decade before Kansas also had had a Golden Lane, and other areas had had Golden This and Golden That. “How about just lettering in ‘The Golden Trend?’” suggested the oil editor. And it was done.

The map and story appeared on April 6, 1947. Within a week there was a Golden Trend Cafe at Lindsay and a Maysville operator was selling Golden Trend Gas; soon there were Golden Trend bar, lounges, pop stands and hamburger joints all over the area. Pauls Valley’s supply row took the tag, and when Jim Jackson sought a slogan for his Pauls Valley radio station, “the Kind Voice of the Golden Trend” was the popular choice.

The name found its way into newspapers and magazines, into scientific and professional journals, and when the Corporation Commission was forced to adopt blanket rules and regulations for conservation purposes, it incorporated some 20-odd pools and sources of supply into the Golden Trend. That made the name official, and that also was how most of the first pools lost their original names.





The first discovery on the Trend was by Carter Oil Co. (now Humble Oil & Refining Co.) at Washington community in November, 1944; it was a produced at 10,625-650 feet, then the deepest pay in the state. A year later Cities Service opened the North Lindsay Pool with a “tight hole”; it, too, was deep. While these two wells attracted much attention, they didn’t start a boom because of depths and costs.

The kick-off came in March 1946, when Vickers Petroleum and Globe Oil & Refining completed the No. 1 Gibson at Southwest Antioch, at a depth of 6,600 feet. There was considerable open acreage within sight of the derrick; the independents were ready to wheel and deal, and they did. Within a year, Antioch had 42 producers with only one dry hole and 15 rigs were running.

Again Lady Luck had smiled on the Sooners, and she is still smiling for there are two score rigs running on The Golden Trend today.

OLD GREASY SPOONS
GONE FROM OIL PATCH
(First published in *Independent Oil*,
The OIPA Annual Yearbook of 1959)



A painting of Tulsa and its oil refineries in 1920 by artist Frances Del Mar.
COURTESY OF THE STATE MUSEUM COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

The coming of the petroleum clubs, lounges, and neon lighter drive-ins have changed the eating habits of men in the oil country—from the roustabout to the top executives. Gone are the days of the greasy spoon and rag napkin spots, where food was filling and fine, and the prices low.

Back in the days when an operator wanted to know what was happening in the field he took off, visited the rigs and swabbed the drilling crews. Then he wandered to the nearest town to pick up gossip and a few risqué stories.

A gathering of roughnecks around a cafe was a sure sign that good food was served; there you would find operators, landmen, geologists, brokers, and sometimes a few truck drivers.





Above: Carpenters prepare wood derricks, c. 1900-1905.

COURTESY OF THE KENNETH BEARDSLEY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: The original caption on this photograph from the H. W. Hardy

Collection says it all, "They move out a \$50,000 home to drill a well between two other \$50,000 homes out by the Capitol" in 1948.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Such a place was opened at Marshall when the Roxana (Marshall) Pool was opened in 1927. A fellow, best known as "Bill," moved in from Seminole, rented a store building and installed a big stove, some plain pine tables and heavy chairs. The walls were bare, but the floor and tables were spotless.

"Bill" knew the kind of food that stuck to a fellow's ribs. Flapjacks were stacked six high, and smeared with butter; every table had a pitcher of molasses. His coffee would float the spoon. Sometimes he served grits and redeye gravy, with hunks of sausage for breakfast.

"Supper" started at 6 o'clock and lasted until nearly dawn. "Bill" was throwing out steaks that would choke a hungry dog; potatoes were fried by the bucketsful, and there were more than enough onions to go around. The price was a buck, and everyone left with two toothpicks in his face.

Over at Ada, Mike Michaels was the man who brought the boys to town to eat. He was running the coffee shop at Hotel Aldridge when the Fitts Field was discovered. The hotel lobby was filled day and night, and the cafe was always open.

Along with the operators there came a crowd of field workers, looking for jobs. Many of them were hungry. Mike would look at their hands and tell the waitress to pile on the food. When he stabbed the check on a spindle, Mike would grin: "When you get a job, pay me ... if you get hungry again come back."

Some of them were coming back for as late as three years to settle with Mike.

When the "Binger bubble" burst back in the early 1930s, the only fellow who had anything to show for it was a cook who opened a hole-in-the-wall restaurant on Binger's Main Street. He served only steaks, potatoes, bread and coffee. It cost nothing to walk into the place, but it cost a dollar to get out; there were no arguments.

"Bob" Rapp drilled the Binger discovery right in the middle of a 50,000 acre block of leases, as one of the deepest holes in the state. There were good shows of oil and gas, with high pressure and extremely high temperature. Because of interest in the well, during testing stages as many as 10,000 people tramped over the lease. The only place to eat was in Binger. Rapp drilled a second well on the block, finally marked off a loss of several millions, but the restaurant man claimed a record of 7,200 meals on high peak day.





MAIN STREET
OKLAHOMA... AND OIL
OIPA publication, 1961

In 1961, E.A. Smith, President of the Oklahoma Independent Petroleum Association, launched a unique series of radio broadcasts heard by listeners of 25 radio stations across the state of Oklahoma. WKY newsman and sports announcer Ross Porter announced the entire series of columns written by many of the state's pioneering leaders in the oil and gas industry. The 13-week radio campaign, excerpted here in each column's entirety, served "to create a more friendly understanding on the part of the general public, toward the oil man, and the oil industry in particular."

"THE INDEPENDENT OIL
MAN IN OKLAHOMA"
by Ward Merrick, 1961

The Independent Oil Man in Oklahoma is, or could be, your neighbor. He may belong to the same Church you do; he probably attends the same Civic Club that you belong to. At any rate, he is a hardworking, average man. His interest in his family and his children is like yours, and he does his best to make them a good living and carry his part of civic responsibility. He probably borrows his

money from the same banker, buys his shoes from the same shoe store, and reads the paper just the same as you do. He is prone to make the same gripes, and finds fault with taxes, the legislature and its members—just like you do.

A big share of the time of the Independent Oil Man is spent in getting information about his business. He has to be a good trader, and an honest one, and sometimes a salesman too. He has to be somewhat of an engineer, a geologist, a lawyer and a mechanic. Certainly he must know many bankers and how to borrow money.



MIDDLE AND BOTTOM IMAGES COURTESY OF THE WALTER M. SARTAIN, JR., COLLECTION, OKLAHOMA HISTORICAL SOCIETY.



Your independent oil man does not have regular hours. He is required by the nature of the oil business to be on the job night and day at times, when machinery breaks down or trouble comes, he stays until the emergency has passed; no matter how long.

The risks in the oil business are generally greater than they are in a number of other businesses. So he has to be somewhat of a gambler in a sense, and make up his mind quickly and positively.

It is not often that you hear him complain about the dry hole he has drilled or the lease or leases he has lost because a proposed well did not get drilled.

More often than any other person or company, the Independent Oil Man is responsible for the promotion of exploration wells, or more commonly called "Wildcat" wells. When he

starts a wildcat well he only has one chance to nine of being successful—which is not very good odds when the average cost is \$100,000 and his chance of finding a really large oil field such as Oklahoma City, Seminole, Elk City or Healdton, is one to ten thousand.

These wildcat wells are the very life blood of the oil industry and, when successful, bring untold wealth to the State of Oklahoma and its people.

The Independent Oil Men whom I know, are glad that they are in the Oil Business. There seems to be a romance to it, and even though the hours are often long, the risks great, the competition keen—they would not trade with other professions. I am glad I am an independent oil man in Oklahoma, and I trust you will join me and the hundreds of the other Oklahoma Independent Oil Men, in the challenge to keep the oil business independent—and free—from federal control, or from socialization of any kind—so that Oklahoma will continue to offer the oncoming generation of young people the opportunity to stay here, and to dedicate themselves to finding new oil reserves for our state—and to continue the high tradition of the Independent Oil Man in Oklahoma.

ECONOMICS OF OIL AS IT AFFECTS MAIN STREET

By John J. Robertson, 1961

How does the economy of oil in Oklahoma affect "main street"? Explore the proposition with me for a few moments, if you will.

First, what do we mean by "main street"? For the purpose of this discussion, "main street" means to me the business and professional groups of our towns and cities...and...the farmer should also be included in the definition. So...what we are really saying is...how does the economy of oil affect the merchant, the banker, the lawyer, the doctor, the teacher, and the farmers of Oklahoma?

Some of you will remember the "boom days" of oil in Oklahoma when in many communities oil WAS main street. That is to say...the business community was dependent upon oil for its very survival. To a lesser degree that same situation exists today.



The Madill Oil Field around 1907.
COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY
PHOTOGRAPH COLLECTION.



Oil or gas, or both of them, is produced in seventy of the seventy-seven counties of the state. The economic impact of developing and producing oil and gas is felt by every city and community in these seventy counties. Let's take a look at the impact from a dollars and cents standpoint.

The oil industry employs sixty thousand or more Oklahomans. These employees receive in wages and salaries approximately two hundred fifty million dollars a year. Most of this money is spent on main street. Each year the industry spends some sixty million to eighty million dollars drilling for oil and gas. This money, likewise, finds its way to main street.

The farmers, who are the principal land owners of the state, benefit greatly from the oil industry. In addition to the royalty received by them from the production of oil and gas, an estimated \$20 million a year is paid to the land owners by the industry as rentals for lands under lease for oil and gas.

Most of this money finally winds up in the cash registers of the business and professional people on main street. As a merchant, an automobile dealer, or other business man on main street, think what would happen to your business if suddenly \$300 million or more a year was no longer available for spending by your customers. This will give you some idea of what the oil business means to "Main Street, Oklahoma."

The teachers in our public school system indirectly derive substantial benefits from oil. Gross Production Taxes alone, in excess of \$30 million a year, paid by the producers of oil and gas, is the fourth largest source of revenue received by the state. Ten percent of this tax is allocated to the schools. Thus, it can be seen that \$3 million or more is paid by oil to our public school system each year.

Including the Gross Production Taxes, oil pays approximately 50% of the total tax bill of the state. Accordingly, 50% of the money provided by the state for the common school system, old age assistance, dependent children, the blind, the disabled and other functions of the State Government is paid by oil. In a direct or indirect way, a large percentage of this money finds its way to main street through purchases from the merchant,

the payment of doctor bills, lawyer fees and all the other costs of living and doing business in the state.

Think with me, if you will, what your tax bill could be if the 50% of present taxes now paid by oil was no longer available to the state. That is a frightening prospect, isn't it?

How does oil affect Main Street, Oklahoma? In a MOST VITAL WAY!

That is why all of us should join in doing everything possible to encourage oil development in Oklahoma. Such development makes jobs available to our people and promotes the general economy of our State.



WHAT OIL HAS DONE FOR OKLAHOMA

By Hal T. Gibson, 1961

What has oil done for Oklahoma? Oklahoma is one of the youngest states in the Union—but already it has reached great heights in development. In the seventy years since the first commercial oil well was brought in, on the 15th of April 1897, ten years before statehood, in Bartlesville, Indian Territory, oil and gas in the amount of \$15 billion has been sold from Oklahoma wells.

What has happened to this \$15 billion, besides annually accounting for about seventy percent of the state's revenue?

Cities not previously found on any map have been created from mudholes; existing



*An aerial view of Continental Oil Company
and Cities Service Oil Company in Ponca
City, Oklahoma.*

COURTESY OF THE DEVON/DUNNING
PETROLEUM INDUSTRY COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.



Above: The offices of Marland Oil Company in Ponca City.

COURTESY OF THE PIONEER WOMAN MUSEUM COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: A "20-horse load from Pemeta, Oklahoma, for Hill Oil Company" in the mid-1910s.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

towns and cities have increased tremendously in population. Tulsa and Oklahoma City have become progressive industrial metropolitan cities; due largely to petroleum production and refining. Smaller towns, too, have grown. And many of Oklahoma's thriving communities, Bartlesville, Ponca City, Ardmore, Seminole, to name a few—literally were born from oil and have grown and flourished along with the industry.

To these cities and towns have come people from every section of the United States, and even from other countries— attracted by oil. They have brought with them new ideas, new visions, new enthusiasms, and with great pride in their adopted state, many have taken the leadership in community and civic projects to bring about further progress.

The roads upon which you drive today were, in many cases, constructed originally to carry materials to rough drilling sites. Today they are maintained by the revenues derived from taxes paid by the petroleum industry. Many of the first railroads in Oklahoma were constructed for the exclusive purpose of transporting oil—and today they still serve the state.

Oil has contributed to education in our public schools and our institutions of higher learning, the State Universities. They are dependent upon oil dollars, and so are the faculties which staff them.

There are also fine colleges which are individually endowed, in many cases, largely with oil money.

On a trip through any of the seventy Oklahoma counties which now produce oil



and gas, you can see many modern farms paid for by oil. Many of these farmers were helped through hard times by oil—royalties paid for the college education of their children—have allowed them to make improvements and modernizations which in turn have increased the agricultural value of the farms.

Personal gifts from oil men have stimulated Oklahoma's culture and economic growth. All over Oklahoma are churches, hospitals, art centers—such as Philbrook, Gilcrease and Woolaroc—libraries, stadiums and other civic enterprises—all made possible either in part or entirely by gifts. The Oklahoma City Symphony Orchestra and the Tulsa Philharmonic are also supported by many who derived their income from oil. Other gifts have been made for more general causes and local community projects.

In the important field of scientific research, oil has played a dominant role in the creation of research laboratories at many of our Universities, as well as those privately owned—the Scientific Research department at the University of Tulsa, for instance, and the Pan American Laboratory, as well as the proposed multi-million dollar Sinclair Research Laboratory—in all, some 16 major research laboratories, whose annual payroll is \$43 million. The nationally acclaimed Frontiers of Science Foundation has as its life-blood a flow of oil dollars. History proves the Oklahoma oil industry's right to assume a major role as one of the four leading oil states in the nation. And, although our oil industry is facing one of the most difficult periods in history, we are still producing more than a half-million barrels of crude oil and an increasing amount of gas every day. Oil has made our state strong, and the oil industry will meet the challenge of the future, to keep Oklahoma growing, progressive and economically sound along every Main Street in Oklahoma.

THE IMPORTANCE
OF FINDING NEW OIL
IN OKLAHOMA

By Jack H. Abernathy, 1961

It has been said of all the wars in the 20th Century that “the U. S. floated to victory in a sea of oil.”



The commodity that was essential to our Nation in wartime—Oil—is essential to Oklahoma at all times.

Did you know that counting direct taxes on gasoline and oil and gas, indirect taxes on motor vehicles and the estimated industry share of income and other taxes, the oil business pays more than \$180 million—70%—of Oklahoma's annual tax take of \$260 million?

One thing is obvious; if there were no oil here our State would be vastly different and economically depressed. Everyone in every line of endeavor would be doing much less business or he would be doing it somewhere else!

Petroleum can continue its major contribution to our economy only if oil and gas production and exploration are held at or above present levels. Every barrel of oil that is produced leaves one barrel less underground. Productive capacity continuously declines from completion of a well until it is exhausted. On a state-wide basis, decline is about 10% to 20% per year.

The difference must be made up from new oil reserves. You can imagine what the situation in our State will be if the industry, responsible for 70% of our tax receipts, starts shrinking 10% or 20% a year!

Yet, the only way to avoid shrinkage is to find new oil—partly by research in getting



W. A. Durant (center) at the Burk-Burnett oil field around 1920.

COURTESY OF THE WILLIAM A. DURANT COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

new production from old fields, but mostly by discovering and developing new fields.

The question is, “How are we doing at finding new oil here in Oklahoma?” The sad truth is that during 1959 and 1960 our State’s all-important crude oil reserves have diminished by 267.4 million barrels. At an average \$2.90 per barrel, this is a \$775 million reduction in our inventory of mineral wealth.

If continued for several years, this trend could result in a financial pinch of unparalleled severity in Oklahoma.

Reserves have declined because, owing to restricted markets, oil production allowables are so low as to discourage wildcatting and development.

Rate of income from new wells just isn’t attractive enough to justify the risk.

There are two things Oklahoma can do to help stimulate development:

1. Avoid any increase in the disproportionate tax burden borne by the petroleum industry. Oklahoma oil competes in the Chicago-Minneapolis industrial market with Rocky Mountain and Michigan-Indiana oil. Excess taxation raises the price of our oil and tends to make it non-competitive.
2. Allocate the available market so as to stimulate development.

The fact is, that in a praiseworthy attempt to protect the older “stripper” areas of the State, it has been the practice to require newer, deeper wells to make most of the curtailment required to adjust state oil production to market demand.

This protection policy has been overdone. Shallow wells often pay out in a few months, while deeper, high-risk exploration wells, which might discover the large reserves our state requires, are faced with a payout of many years. The policy has been self-defeating—it has discouraged exploration and reduced our markets. I say “self-defeating” because MARKETS FOLLOW RESERVES. Purchasers like to lay pipelines to big fields—gathering costs are lower and the installations have a long life. Once the line is laid, smaller wells along the routes are also connected to the system, getting the advantage of a pipeline investment that only big reserves can justify.

Fortunately, the Oklahoma Corporation Commission, which regulates oil and gas, has recognized the situation and is modernizing its rules. The Oklahoma Independent Petroleum Association, of which I am a member, has and is cooperating with the Commission in this effort.

Under the proposed new rules, owners of genuine stripper wells will not be penalized one barrel; but new wells on wider spacing will be granted larger quotas.

This is a step in the right direction. If the proposals are placed into effect, I predict that 1961 and 1962 will see the beginning of a sustained upswing in oil exploration in Oklahoma.



MARKETS FOR
OKLAHOMA OIL
By George C. Martin, 1961

It may surprise many of you to know that seventy percent of the operating revenues of the State of Oklahoma come from the direct and indirect taxation of the Oklahoma oil industry.

In order to maintain this necessary income for our various functions of State Government, it is essential that a continuing market must



COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY
PHOTOGRAPH COLLECTION.

be found for the oil produced in the fields of Oklahoma.

Historically, Oklahoma has been able to hold approximately 8% of the national market for crude oil, while possessing approximately 6% of the national crude oil reserves in the ground. This ratio varies some from time to time, but it has been generally in that proportion during recent years. About one-half of Oklahoma's produced crude oil moves into markets outside of the State of Oklahoma.

The discovery of new oil fields in other states, that allow unrestricted production of wells without any desire to conserve their oil for future generations, has constantly applied competitive pressures in Oklahoma's historic crude oil markets.

While some of the states that have permitted unrestricted production of their state's oil reserves have been, and still are, a serious competitive problem in the marketing of Oklahoma crude oil, it will not take very many years for them to exhaust their flush production. They will leave untold thousands of barrels of unrecoverable oil in the ground because of the lack of a sound oil conservation law and a sensible market demand program such as we have in Oklahoma, and which is so ably administered by the Oklahoma Corporation Commission.

Oklahoma's forty-odd large and small crude oil purchasing companies find a market for one-half of Oklahoma's present daily crude oil production of 525,000 barrels per day at Oklahoma refineries, and a market for the balance at refineries in other states.

Oklahoma has done well in holding its share of the national market for crude oil in recent years. Continued cooperation between the crude oil purchasing companies, the Oklahoma Corporation Commission, the Oklahoma Independent Petroleum Association, the producers and the refiners of the state will insure that Oklahoma continues to share as large a percentage of the national market for crude as it has in recent years; in spite of competition from other crude oil producing states.

It has been wisely said, I think, that the discovery of important new reserves will almost automatically bring on new markets for

our state. If this is true, then we should stimulate the drilling of more wildcat wells all over Oklahoma—in order to improve and increase our reserves—and to insure more...Markets for Oklahoma Oil.

OIL AND THE CORPORATION COMMISSION

By Harold E. Rorschach, 1961

All oil and gas laws pertaining to the drilling, operation, spacing and production of the vast state oil and gas industry are administered by the Corporation Commission of the State of Oklahoma, which is vested with legislative, judicial and executive power, and under the law is charged with the duty of preventing waste and protecting the correlative rights of the owner of oil and gas within this State. The Corporation Commission was created by the Oklahoma Constitution and is composed of three resident citizens of Oklahoma, elected at a general election. In its administration of the oil and gas laws, the Corporation Commission has been commended by the Courts as being fair and equitable.

In 1945 the Legislature took a bold new step in adopting an act for the united management, operation and development of a common source of supply of oil or gas, giving the Corporation Commission jurisdiction of its enforcement. This Act in substance eliminates property lines in oil or gas production from a common reservoir.

Oklahoma oil men pay tribute to the present Commission members for the honesty and integrity with which they approach and attempt to solve the tremendously difficult problems which confront the Commission every day. Certainly the stability now of the Oklahoma oil industry is due largely to the orderly manner in which the Commission makes its decisions on these vital problems.

The oil industry furnishes employment for more than 100,000 citizens of our state. Payments for oil and gas made to Oklahoma royalty owners, lease renewal and rental payments made to Oklahoma mineral interest owners, amount to more than 100 millions of dollars annually. This revenue generates business in every community in this State,

and when production is found, the tax from this production is a heavy contributor to State operations, furnishing more than 70% of all tax revenues which flow into the collection agencies of the state.

Since Oklahoma Statehood in 1907, petroleum has revolutionized agriculture, industry and transportation, has created great national wealth, and lifted burdens from men's backs the world over. Oil and gas now provide the principal energy supply of the nation—more than 71 and one-half percent. More than \$6 billion has been poured into the development of the Oklahoma oil industry from the days of the Glen Pool up to the present time.

The oil industry pays the highest annual wage of any comparable endeavor. It has held the line on product prices in the face of wage advances of more than three times the level of 20 years ago.

In 1960, 4,802 wells were drilled in Oklahoma, which represented an investment of more than 240 millions of dollars. At the end of 1960, Oklahoma had 80 thousand producing oil wells and 46 hundred producing gas wells, from which last year the Oklahoma oil and gas industry produced 663 millions of dollars worth of crude oil, gas liquids and natural gas. This amount exceeded the total revenue derived from all Oklahoma farms and farm products.

These figures very simply demonstrate what a great industry oil is to our state. They also point out the tremendous responsibility the Corporation Commission has in administering so many drilling and completion operations—to say nothing of the duty to fix the allowable for each well, every month, to meet the market demand.

In conclusion, let me say that another historic event became effective recently when the Commission issued a new code of general rules and regulations effective April 1, 1961. Generally speaking, all of us believe they are a decided improvement, although some of us may have differences of opinion about certain specific changes. Most of us believe that so long as discretion and interpretation remain with the present Commissioners, all will be well with "Main Street, Oklahoma...and Oil."

WHAT OIL MEANS TO THE OKLAHOMA FARMER

By Jack D. Berry, 1961

Too many farmers today think that the struggle for survival in the oil business is not important to them. Rigs are being stacked, small oil companies are folding and some farmers couldn't care less.

Twenty years ago the word "oil" was exciting and the farmer eagerly talked about the possibilities of oil on his land. He would get one-eighth of all oil produced. Today the farm tenant and sometimes farm owner in an oil area has the land, but not the royalty; the former owner did not sell the royalty. Thus, the oil producer in many cases can no longer approach the farmer as a man who shares his interests and hopes. The successful production of oil by the producer is of little concern to a steadily increasing number of farmers. Generally speaking, today's farmer, when he thinks of oil, thinks of damages—salt water damages, pipeline right-of-way, water for drilling, and surface damage.

Perhaps I can say a few words here that will create an interest and concern on the part of the farmer for the success of the oil industry. The main point that most farmers have forgotten or do not realize is that the oil industry pays over 70% of all the taxes paid in Oklahoma. In 1960 this amounted to over \$181 million. Think of it—one industry pays 70% of Oklahoma's taxes. If oil ceases to be a major industry in Oklahoma, agriculture will have to take over its portion of this tax burden. Can you imagine the farmer in Oklahoma being taxed as the oil industry in Oklahoma is presently being taxed? I was a farmer for 10 years before I got in the oil business, and I know as well as you know that agriculture cannot carry this tax burden. If Oklahoma's oil industry fades away, who will pay these taxes for roads, schools, pensions, and the salaries of government employees?

The oil taxes to you, the consumer, are outrageous. Read the sign on the gasoline pump the next time you buy gas.... The producer has already paid a gross production tax of 5% on all crude oil produced based on pipeline runs. These are only two of the many taxes paid.

The truth of the matter is that the oil business here is in a life and death struggle. This struggle for survival is being waged with government pro-rationing, most of which is brought on because of foreign oil imports. Production allowables like the present 13 barrels per day mean that it may take four years for a well to pay out. Add this to the fact that only one well in seven ever pays for itself, and one in thirteen ever makes a profit. The producer in many cases never gets his investment back. By the time this one well in thirteen pays for itself and the other seven non-profit wells, the well is usually ready for abandonment, and we have not mentioned the dry holes that have been drilled. More independent operators have been failing every year because they cannot continue to operate on this long-term payout basis and risk.

The farmer should see the oil producer as a man of similar interests. Like the farmer, most oil producers are working for water conservation, and taking measures to protect soil and stock animals from damage. The occasional heedless producer makes trouble, and the farmer sees him as typical. He hits all oil men with constant damage suits, which are an added expense to an industry that is fighting for its life. The farmer needs the oil industry. He should work with the industry, not against it.

The farmer should also be concerned with the success of an industry that provides consumer capital for his produce. Nineteen million dollars each year are paid for unproductive acres under lease, plus \$40 million in bonus money. These direct payments to the royalty owners, plus salaries paid employees of the oil industry, add to the purchasing power of the farmer's best friend, the consumer.

The plain truth is that a strong oil industry means life to many of the farmers of Oklahoma. Let us not be like the farmer's wife who killed the goose that laid the golden egg.

THE OIL INDUSTRY
IN OKLAHOMA
By Paul R. Schultz, 1961

The Oklahoma Independent Petroleum Association, an organization begun six years ago by a group of independent oil men,

believes that Oklahoma's biggest day in oil and gas need not have been in the past. Under favorable circumstances, there can be a steady growth of our industry, with a consequent growth of population and enhancement of values of all classes of business and property.

Our organization gives the independents the opportunity of gathering together to exchange information and attack problems adversely affecting the oil business in Oklahoma and in the nation. A further purpose of OIPA is to supply facts about the oil business to men active in governmental affairs and to other citizens.

Oil and gas have truly been the "mainsprings of progress" in Oklahoma; and it can be said without dispute that the advent of the petroleum industry, and its continual growth in the state, has in itself put Oklahoma ahead 100 years from what it would have otherwise been.

Oklahoma became a state only 54 years ago; but, despite its natural surface disadvantages, it has traveled in "seven-league boots" to overtake states that had been a century or more in building. This fast progress was powered by OIL. Tangible proofs of this are the homes, the schools, the churches, the public safety and health and sanitation services, the highways, the steadily improved rural conditions and the clean, bright modern towns and cities.

Every Oklahoma community, however remote from oil and gas fields or refineries, has been affected beneficially by oil and gas development, and every individual in the state has benefited enormously from the wealth created by this oil industry.

It is the purpose of our organization to support oil and gas legislation which eliminates injustices and provides a better business climate—which invites new capital and more people to our State and to our industry. Our aim, also, is to encourage more exploratory drilling; find new oil fields, improve spacing regulations, and develop new markets—all of which should vastly benefit our industry and provide jobs for our people, especially our technically trained young people. Moreover, we request the advice and support of all Oklahomans who are willing to help KEEP Oklahoma a great oil state.



The Cimarron River, c. 1920.

COURTESY OF THE DEVON/DUNNING
PETROLEUM INDUSTRY COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

A healthy domestic industry is essential to our economic well being in time of peace. It means the difference between life and death in time of war. In summary, a healthy domestic industry is conducive to a more prosperous future, not only for our country, our state—but for each and every one of us as Oklahomans, and that, my fellow citizens, is the ultimate goal of the Oklahoma Independent Petroleum Association.

THE PRODUCER OF STRIPPER OIL WELLS

By John Greene, 1961

The stripper wells, it is said, are the backbone of the oil business in Oklahoma. The *Oil and Gas Journal*, dated May 8, 1961, states there are about 68,000 producing wells in Oklahoma, which are in the stripper well and water-flood category.

They produce about 91 million barrels per year...Of course, these wells are scattered on thousands of leases in the 70 producing counties of Oklahoma, and therefore contribute to the prosperity of these counties, and to the State in general.

The producer of stripper oil wells in Oklahoma is, of course, only one segment of the oil business. However, in numbers these wells constitute a large portion of the producing wells in this state, or for that matter in any oil producing state.

The gusher well, or large producer, when drilled is destined to become at some later date a stripper well. This type of well may be defined as a producing oil well which no longer has the reservoir energy to flow or produce oil in large quantities. This energy

may be gas, or water drive, or both. As a result, the oil produced from such a well drains into the bore hole by gravity and must be raised to the surface by means of a bottom hole pump attached to tubing and rods in the well.

The stripper well must, from necessity, be a low-cost, economical operation, which for the most part does not lend itself to major company overhead. Therefore, the result is that a large number of independent or small operators finally become the owners of these small leases.

In the northeast part of Oklahoma, an area with which I am more familiar, these wells have been a steady source of income for almost whole communities, as well as for land owners.

In the past few years, secondary recovery has been used in some of the old fields, and this method has resulted in increased production from some of the old stripper well leases by means of waterflood. However, not all of the formations from which these old wells produce will justify the cost of secondary recovery. Therefore, these leases will remain as stripper production until it is no longer economical for even the small operator to produce them.

Some of these wells are over 50 years old.

Even in the face of rising costs of material and labor, and a lagging price for oil, the stripper producer seems to find ways of producing this oil; and in doing so, is recovering hundreds of thousands of barrels of oil each year that would otherwise be left in the ground.

As an example of a stripper operation, my partner and I own a lease in Washington County, on which there are some forty wells producing. These wells are pumped from a

central power and range from depths of 500 to 1300 feet.

The wells produce only a few gallons to a few barrels per well, each day; but they provide a job for a pumper and partial jobs for extra help—pipe line gauger, income to the land owner, the State of Oklahoma on gross production tax, the grocer, the insurance man, and the other business people on “Main Street, Oklahoma.”

FINANCING OKLAHOMA DEVELOPMENT

By James B. Kite, 1961

The scope of financial transactions leading to the drilling of oil and gas wells is both varied and in many cases quite technical. The range is from simply a group of individuals taking small interest and “rolling the dice,” so to speak, to the major acquisitions of large companies involving complicated oil payments and long term financing.

However, what most concerns us here in Oklahoma is improving the climate for continuing the activity of independent oil men and major companies alike. It is no secret that much of the risk capital required for wildcatting and development work comes from out of the state. By far the majority of all wells drilled in the State of Oklahoma, and incidentally, the majority of new oil and gas reserves, are uncovered by small independent operators. These men have obtained the necessary money from friends and business associates not primarily connected with the oil business.

In recent years, the flow of this money supply has tended to dry up. There has occurred a great reduction in drilling activity and an accompanying loss of interest in purchase of oil and gas leases. I am sure many of you have noticed the decline in lease bonus prices and the value of your royalties.

Why has this happened? The reason is the law of supply and demand. There is an oversupply of oil in the world markets and competition has limited the outlets for Oklahoma produced crude. We have been faced with minimum allowables creating economic hardship on producers who are

continuously attempting to just get their money back. This has reduced the income to thousands of royalty owners as well as the State of Oklahoma.

The financing of oil and gas development is not greatly different from any other business enterprise. To obtain working capital, security is necessary either in the form of barrels of oil in the ground or merchandise on the shelf. Income in sufficiently large amounts must be available to retire indebtedness. Allowables on oil wells are the chief restriction of this income. It is possible to discover large quantities of oil but remove it from the ground so slowly that an actual loss takes place due to the fixed overhead involved. Naturally, this then becomes the prime concern of anyone desiring to develop oil and gas reserves. Unless allowables can be maintained at a level which will yield the income for return of investment in a reasonable period of time, it is impossible to obtain that investment in the first place. In addition, it must be remembered that few development programs are conducted without dry holes. These must be paid for out of production from the successful wells. Once again allowables represent the key.

Recently, your State Corporation Commission in recognition of this problem, established new rules and regulations for oil and gas producers. These rules permitted the drilling of fewer wells on wider spacing units and increased the allowable daily production. This in turn has already created optimism and a change in thinking of many oil men. However, such action by the Commission needs all of our active support. To continue these improvements our state's depletion allowance must be increased to that permitted by the federal government.

Practically everyone in Oklahoma is dependent in one way or another, upon the health of the oil business. Much of the revenue through taxes of your State Government is derived directly from production of oil and gas. When this production declines, the State must necessarily replace its lost income. To accomplish this means increased taxes to all of us on different commodities.



Following pages: The oil industry is commemorated in these paintings by Frank Chapman Williams.

COURTESY OF THE M. L. ATKINSON COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.







Above: A nighttime view of Oklahoma City as seen from the roof of the Oklahoma State Capitol, looking northeast.

COURTESY OF THE MURIEL WRIGHT COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: An historic meeting at Ponca City, Oklahoma on January 3, 1935, led to the formation of the first Interstate Oil Compact Commission.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Therefore, a healthy, active and progressive industry is of vital importance to all of us. The environment required to make this possible automatically will attract the necessary risk capital to drill more wells, produce more income to landowners and relieve tax burdens everywhere.

“UNITED WE STAND”
TO KEEP OKLAHOMA
PROSPEROUS

By David A. Bartlett, 1961

For the past several Sundays you have heard talks about various aspects of our oil industry in Oklahoma by independent

producers. It is my purpose to tell you how the people of Oklahoma and Oklahoma oil men are working together today.

There was a time when independent producers did not get along with major oil companies, when producers did not get along with pipe line purchasers, when producers were afraid to cooperate with each other. There was a time when oil men released practically no information about their wells; everything was held most secret. There was a time when our Legislature did not understand the oil business, and when oil men and farmers did not understand each other.

In the early 1930's, oil wells were allowed to flow wide open, which meant less ultimate recovery from our oil fields, and prices for oil in the neighborhood of 25 cents per barrel. Many small wells were plugged—much oil was wasted. Everyone was the loser: The oil man who sold his oil at cheap prices, the refiner who was plagued with over-production of petroleum products, the State which received less revenue from its gross production tax and other taxes, the farmer who got much less for his royalty oil, and the merchants up and down main street who did business with people whose income from oil dropped substantially. The newly discovered Oklahoma City field and the new fields in the Greater Seminole Area were dumping unwanted oil on the markets, and to the south, the new East Texas oil field was glutting the market with 10-cent oil. Governors Bill Murray and E. W. Marland knew that something had to be done.

The Interstate Oil Compact Commission was organized, conservation laws were passed to prevent waste, and the Oklahoma Corporation Commission was assigned the task of policing the oil industry under new laws which were passed by the legislature. Order was restored out of chaos. Later, laws were passed to make it easier for oil men to pool their leases so that more oil could ultimately be produced at less cost. Through the process of education, royalty owners learned the value of joining in unitization agreements.

More recently our legislature passed a law permitting wider spacing of oil and gas wells so that more oil can be profitably produced and wells can be drilled that would otherwise



Above is a January 3, 1935, meeting of an Oil Pooling at Ponca City, Oklahoma. From this group stemmed the first Interstate Oil Compact Commission. Standing left to right are: Harcourt Ely, Herbert East, Charles C. Brown, J. W. Goss, Jeff Davis, Wirt Franklin, Max G. Williamson, George Harland, W. J. Harlow, Francis J. Hurley, Ralph H. Gammage, E. V. Tarrall and (unidentified). Seated left to right are: Jack Walcott, Tom C. Johnson, William Bell, E. W. Marland (Oklahoma governor at that time), E. W. Sawyer, (unidentified), Shuman Drew and John K. Farrell.



be unprofitable. Laws have been passed to protect farmers from surface damage and to protect streams and fresh water horizons from pollution. The legislature now understands the importance of the oil business to the economy of Oklahoma, and its members work together with the oil companies to provide necessary legislation. The Oklahoma Corporation Commission works closely with the oil industry to prevent waste and to help maintain a stable condition. Most farmers now understand the oil man's problems and the oil companies now understand the problems of the farmers. And certainly, most important too, the oil men are now working together.

It is now fairly easy to get oil men to join together to drill a wildcat well. My Company has joined with many major oil companies and independents to wildcat for oil in Oklahoma, each of us paying our share of the cost. Oil men now release the information about their wells to each other. Major oil companies and independents now unitize their leases so that they can recover more oil through secondary recovery operations such as waterflooding. Oil producers are learning to understand the problems of the pipeline companies and crude oil purchasing companies.

It is only through the cooperation that we now have, that the oil industry can continue to exist in our State; and it is only through this united stand, that Oklahoma oil men can do their part to correct inequities that exist in our oil business on a national and world wide level.

THE FUTURE OF OIL IN OKLAHOMA

By E. A. Smith, 1961

In order to bring this subject into its true perspective, it is necessary to present some

history of the part that oil has played in the development of the State of Oklahoma.

Prior to 1900, Oklahoma was a Territory and the major industry was stock raising, and a small farming program. The state had no system of roads and only limited school facilities.

Oil was discovered at about the turn of the century in the Glen Pool, just south of Tulsa, in 1906 and rapid discoveries continued. As a result, the State began to flourish rapidly in population and industries. Oklahoma became a state in 1907. From Statehood on, the small towns grew into cities and many new ones sprang up over the state, such as Drumright, due to the discovery of the famous Drumright Pool in 1914. Simultaneously with the development of oil in the State of Oklahoma, improved roads and highways began to take form. New schools and churches were built to take care of the increased demand upon them.

Oil in Oklahoma became the major industry and has supplied approximately 52% of the



Above: Smoke rising from fourteen tanks that had caught fire.

R.H. LAMB PHOTOGRAPH, COURTESY OF THE RAY JACOBY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Blackwell's first oil well debuted in June 1914 and produced seven hundred barrels every day.

TROMPOTTER PHOTOGRAPH, COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, COURTESY OKLAHOMA HISTORICAL SOCIETY.





Above: The Mid-Continent Oil field, east of Drumright, included this colony of oil field workers in 1915.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Top, right: Oil well derricks can be found in many photographs that tell the amazing history of the great state of Oklahoma. This photo was taken by George R. Wilson on June 2, 1972, to commemorate the upcoming construction of Presbyterian Hospital, now OU Medical Center, at 13th and Lincoln in Oklahoma City.

COURTESY OF THE OKLAHOMA JOURNAL COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Drilling an oil well, 1918.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

taxes to take care of the State's development programs. The past few years have seen the water conservation program put into effect; the building of many lakes with recreational facilities and hydro-electric plants. According to the latest reports, the Arkansas River will be made navigable by 1970.

Can you fully realize what this means to the State of Oklahoma? It will open world markets for Oklahoma products and encourage the building of great petrochemical plants here. We have seen the building of paved highways from border to border; also, the super-turnpike system. A large percentage



of all of this development has been paid for by the oil industry.

If the State of Oklahoma is to continue to grow and prosper, we must have a strong and dynamic oil program, and this can be accomplished by the full cooperation of the independent oil operators in the state who have contributed largely to the development of the State's natural resources. The Oklahoma





Independent Petroleum Association has contributed much to bring about the cooperation of the independent producers, refiners and marketers, to the mutual benefit of all, and for the improvement of the industry in the State. Through this type of program, the State of Oklahoma will grow and expand in its industrial development.

However, it must be remembered, based on the history of the growth of this State, that the future of the State's progress will depend largely upon the petroleum industry which must not be "ham strung" by Federal or State laws, that prevent an industry which has contributed so much toward the State's economy and progress, a continued normal growth.

Stop to think what would happen to you—the State, or the Nation—if suddenly you could not drive into a filling station and say "Fill 'er up!" The reply, "Sorry—there is no gas"? You would panic, and every operation would cease. There would be no electricity to run your refrigerator, your sweeper, your washing machine, or other household equipment; the railroads would be forced to shut down; no airplanes to fly the millions of passenger miles, and worst of all, no power to do the farm work. We no longer have horses or mules, to replace the gasoline or diesel powered tractor units

that have for many years been responsible for the power to plant and harvest the crops; to run the mills and factories that produce our food supply. Think it over, folks.

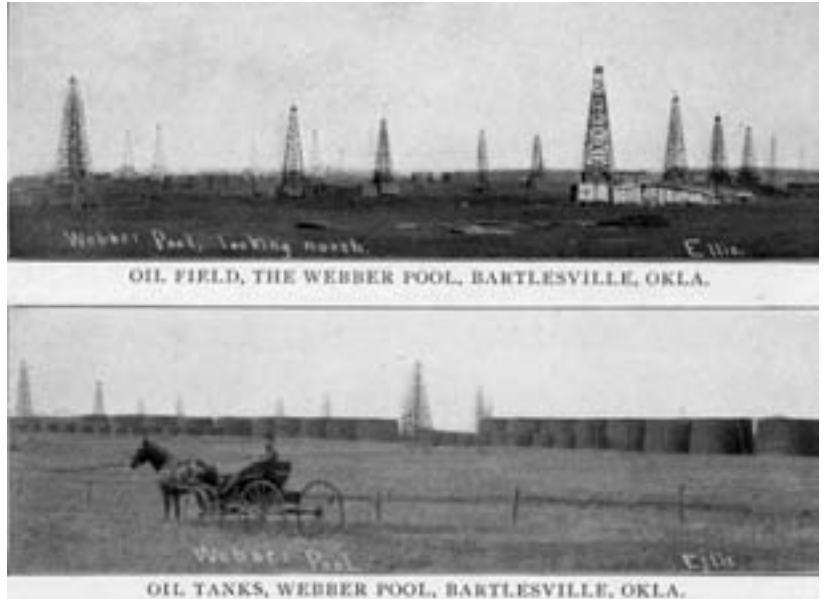
TRIBUTE TO OKLAHOMANS

By R. U. Porter, 1961

Although we are one of the youngest states in the Union, it is a tribute to our country that Oklahoma has always furnished more than its share of dynamic leadership to the growth and development of our Nation in almost every field of endeavor. In football, for instance, the talent and leadership of hundreds of men from Jim Thorpe to Bud Wilkinson; in baseball, from the Waner Brothers to Mickey Mantle or Warren Spahn; then there was the incomparable Will Rogers; not forgetting that pioneer of aviation, Wiley Post—or shall we go on to Maria Tallchief, the ballerina, who is saluted universally. If you listen to radio or watch television you may see or hear an Oklahoman every hour, whether it be Dale Robertson, Patti Page, Paul Harvey, Douglas Edwards or Frank McGee. This list could go on and on through the arts and sciences, up to the present leaders of the space age program in our government, namely, Senator Robert Kerr,



The Indian Territory Illuminating Oil Company had its own baseball team, seen here in 1938. Front row (from left to right): unidentified. Middle row: Stone Burris, B. B. Hut, B. H. Johnston, Hensel Lauderback, Jew McDonald, and Sid Coleman. Back row: L. D. Sanders, L. D. Feemster, Bob Walker, H. S. Lowrey, Otto Kreugel, and Lefty Pritchford.



Above: *The Webber pool near Bartlesville.*
 ELLIS PHOTOGRAPH, COURTESY OF THE DEVONDUNNING
 PETROLEUM INDUSTRY COLLECTION, OKLAHOMA
 HISTORICAL SOCIETY.

Below: *Officials and guests of Skelly Oil
 Company joined Chief Lookout at the Osage
 Oil Lease Auction in Pawhuska, Oklahoma,
 on September 30, 1926.*

ALVIN C. KRUPNICK PHOTOGRAPH, COURTESY OF
 THE CHRIS HEERNDON COLLECTION, OKLAHOMA
 HISTORICAL SOCIETY.

chairman of the Senate space committee, and James E. Webb, the Administrator of the National Space Program.

But let us look at Oklahoma leadership in one industry, for example: OIL. Like the California "Gold Rush" which preceded it, the rush to find oil in Oklahoma attracted thousands and thousands of prospectors, and most of them, sadly to say, failed. But many others, with rugged individual enterprise, succeeded. Men like Harry Sinclair, Bill Skelly, Josh Cosden, H. H. Champlin, E. W. Marland, Frank Phillips, and many more small independents, not only found oil but they began to build great oil companies in Oklahoma which were destined to supply almost every country in

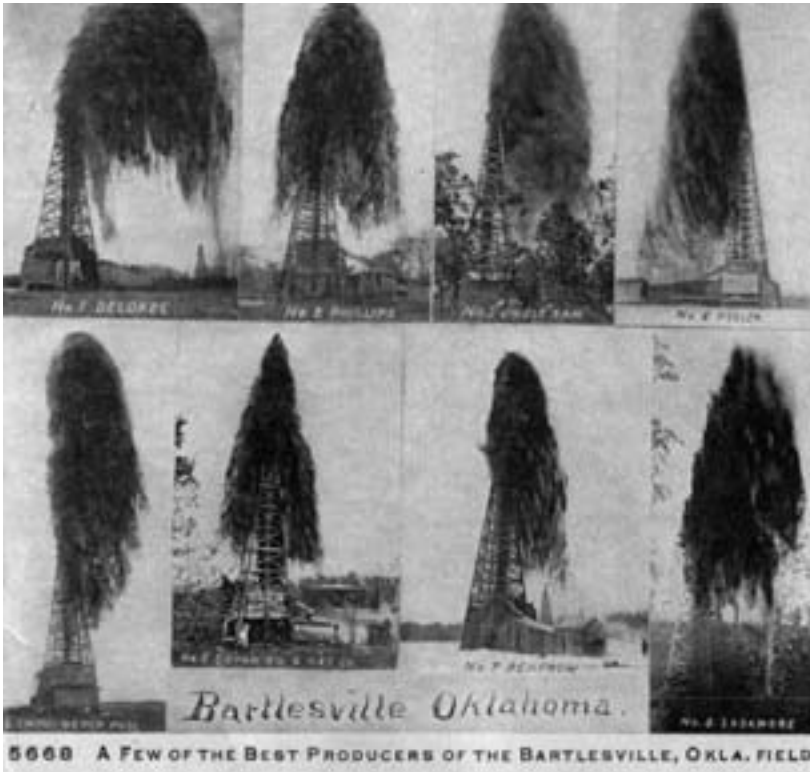
the world with petroleum products from our state. Many of them amassed, or lost, great fortunes it is true; but meanwhile, they likewise created jobs for millions of people throughout the world, in marketing, in almost every major industry, and in all forms of transportation. At the same time they gave liberally, either through high taxation or through generous philanthropies to many worthy causes, so that today, we are all enjoying better schools and colleges, wonderful churches, beautiful parks and swimming pools, and scores of other projects throughout the breadth of our land. Our local, state and Federal governments have been able to provide more and better facilities for our citizenry because of this additional tax





A "view of the best producers" in the Bartlesville oil field.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, COURTESY OKLAHOMA HISTORICAL SOCIETY.



wealth. When you travel across Oklahoma today and see where the 15 billion oil and gas dollars have been used in building roads and beautiful modern farms, or even metropolitan cities, you must be impressed with what this leadership and indeed this heritage, has meant, and still means to our state.

Although most of the foreign countries, once supplied with Oklahoma oil, now have their own huge oil fields, the search continues in

Oklahoma for oil reserves to meet the current needs of our state economy and to serve our country in time of war, if need be, when these foreign supplies may become inaccessible. And the leadership and talent necessary to find these new reserves is still here—in the young, strong, capable hands of a new generation of independent oil men, worthy protagonists to their predecessors of yesteryears, some of whom I have just named...



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THE

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OIL WORLD

DEVOTED TO CRUDE OIL AND KINDRED INTERESTS



OIL OVERFLOW TANK IN THE MUSKOGEE FIELD.

SEPTEMBER, 1909

Vol. 1

MUSKOGEE, OKLAHOMA

No. 1

THE OIL WORLD

The following articles first appeared in volume 1 of the 1909 Muskogee, Oklahoma, publication *The Oil World*.

“BY WAY OF INTRODUCTION”

The Oil World is not started to fill a long felt want nor to amuse, instruct or prey upon the men who have built or are building the great industry of oil. Neither is it the mouthpiece or tool of any association or corporation; but rather the medium of all wherein it is hoped all may feel free to meet on common ground in a fair discussion of the subjects nearest their purses and their hearts.

It is one of the easiest things in the world to start a paper and with one of the hardest to keep it going. The very men and interests—the very communities in fact—most to be benefited by the publication of a journal, be it daily, weekly or monthly, are generally the ones to least appreciate the efforts of its publishers or to realize how much genuine benefit it could be to them if properly encouraged.

However, *The Oil World* is not dependent upon fickle friendships for its living. It proposes to pursue the even tenor of its way so long as it feels so inclined and will try faithfully to merit some kind words (which, by the way bring no cash at the banks), also its share of paying subscribers and wide-awake advertisers.

While *The Oil World* will be specially devoted to the interests of the oil business it will also take little side trips occasionally into the political world—where oil and politics often freely mix—and it is going to say about what pleases on such occasions.

It would seem that Oklahoma needs such a medium—a journal without bias or prejudice and with no strings tied to it—and we believe that you who wear no yokes will appreciate *The Oil World* and its work if you will but take the trouble to follow it. Whether you do or do not, we are here for your inspection and trust that your criticisms may be tempered with kindness and mercy and, incidentally, an order for a yearly subscription.

P.S.—*The Oil World* is not going to be just like any other magazine. It is not going to be a “news” paper, yet will undertake to give the more important happenings in the various fields. It is not going to “boost” some institutions and “roast” others, nor will it permit itself to be used as a catspaw to rake other people’s hot chestnut out of the coals. It is not going to make of itself a mere advertising circular, nor will it be burdened with prose, long-winded or technical dissertations on subjects dead—or that ought to be. It will have no fault to find with any of the journals devoted to the oil industry. Most of them are good, some excellent. But *The Oil World*, while trying to be good, will endeavor to be different. It will make no fuss, demand no favors and expect nothing that isn’t coming to it by right of having earned it.

Thus you have our little platform—not so high but all may climb to it, broad enough to hold a multitude strong enough to withstand the floods and storms that so frequently disturb man’s mental equilibrium and cloud his vision. It is a nice little platform and there will be a goodly crowd. Come up and sit with us, view the shifting scenes and comment with us on the passing show.

A RUDE AWAKENING

Correspondent J. W. Flenner of Washington, D. C. says in the *Muskogee Times-Democrat* that “the Interior Department is awakening to the fact that oil pipe line companies in Oklahoma have oil operators of that state by the throat and a rigid investigation of the companies alleged to be allied with Standard Oil and which ‘are said’ to be robbing citizens of the new state out of millions of dollars of revenue annually will likely result.”



The cover of The Oil World, the first oil publication of its kind west of the Mississippi River. It was printed in Muskogee, Oklahoma in September 1909.

COURTESY OF THE OIPA ARCHIVES.



Above: A devastating flood consumed Oklahoma City in October of 1923. These oil storage tanks sat along South Robinson and were owned by Choate Oil Corporation. COURTESY OF THE CHESTER R. COWEN COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Workers near completion of a large steel tank in the Drumright oil field in the 1910s.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.



This “awakening” (if they do awake) must be a rude awakening indeed. The entire oil business in Oklahoma has from its inception been in charge of and controlled by the Interior Department. If citizens of Oklahoma have been “robbed of millions of dollars annually” because of loose or incompetent management of this great industry isn’t it about time there was an “awakening?”

The correspondent goes on further to say that Acting Secretary Pierce has called a conference of Assistant Secretary Wilson, Assistant Attorney-General Pollock, Assistant Indian Commissioner Abbott and Private Secretary Merritt to ‘discuss’ the situation. Let us hope that all these able “assistants”—none of whom has had any experience in oil affairs or in much of any other business—and who never have been in Oklahoma (except possibly a 10-day Pullman car trip through

the country by Secretary Pierce)—will be able to accomplish something; other than a new set of “regulations.”

Referring to the conference the correspondent says:

“The oil question in Oklahoma was discussed at great length without arriving at any definite plan of action to be pursued in getting a square deal for the independent oil men. The price of oil in Oklahoma was one of the matters under discussion at the conference and as a result it is altogether probable that the rules and regulations of the interior department will again be modified by reducing the amount of royalty required to be paid Indian lessors and the elimination of the dollar per acre per year bonus on undrilled Indian leases after a period of one year. At present oil men are required to pay a 12% per cent royalty on each barrel of oil produced, this being fixed on a basis of 41 cents for oil, the present market price however being but 35 cents.

“In Pennsylvania a similar grade of oil as that produced in Muskogee field brings three times this amount and the government now realizes that there is something radically wrong in Oklahoma. It is alleged that the pipe line companies operating in Oklahoma are under control of the Standard and that enough producing oil wells are being acquired by these companies who fix prices of oil at ridiculously low figures, so low in fact that many oil men have threatened to cease drilling operations unless granted relief by the interior department. The annual oil roy-



alties to Indian allottees now amount to approximately two million dollars and the state is being fleeced of many millions yearly it is said on account of the rapacious greed of the pipe line companies who hold whip hand. While it is the desire of the interior department to look after the welfare of the Indians yet it is intimidated by an official of the department that the Indian should not be protected in the matter of excessive oil royalties when the people of the entire state are suffering and at the mercy of the oil trust. Another conference of chiefs of interior department will probably be held soon and definite plans as to the best way to relieve the deplorable conditions in Oklahoma will likely be set on foot. It looks now as if a brighter day was dawning for the independent men in Oklahoma and arrangement of oil royalties downward is almost certain to be made."

SENATOR GORE

Senator Gore of Oklahoma, who favored free oil against the interests of his home state (the state that sent him to Congress to protect her interests), explained his rather peculiar attitude by saying he expected his stand on this question would result in his political funeral, but that he voted as he did as a matter of "principle." As a matter of fact the oily senator figured out that of the voters of the state there were many more farmers than oil operators—and political demagogues in most states have made farmers believe that anything smelling of

kerosene should be jumped on with both feet—notwithstanding that the average farmer rarely ever pays \$10 a year for all the oil he uses—(except that some are now using gasoline in their automobiles). So instead of trying to dig his political grave Senator Gore was simply trying to make himself solid with the poor and down-trodden farmer. But there is where the senator made a serious blunder. The average farmer in Oklahoma, in fact the large majority of them, has pools of oil under their farms and they are all anxious to have the oil industry protected. Aside from that they appreciate the great value of the industry to the state and that it has helped to make their excellent land markets. In short, we believe the average farmer will be as much disgusted with the populist senator's vote on oil as the oil men themselves were.



Above: Looking along the Cimarron River and the Drumright oil fields in the 1910s.

ELECTRIC STUDIO PHOTOGRAPH, COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: "Hardship of a river bed oil field" at Drumright around 1915.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





Above: Residence Street at the Fulkerston camp in the Cushing oil fields in the 1910s.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Below: Development progresses across the Cushing oil field just sixty days after its discovery.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

“OIL INDUSTRY DEAD – TOWNS DESERTED”

The above was the rather sensational title to a dispatch in a Kansas City paper, recently, dated from Tulsa. The story had reference to towns in the Glenn Pool, once the greatest producing field on earth, and the picture painted was decidedly gloomy. The truth, however, is that the wells in that section are producing regularly and the oil industry is by no means dead. The drilling has stopped, very naturally, as the country has been all drilled out and the drillers and outfits have moved to other fields. It must also be taken into consideration that the recent long spell of excessively hot weather has had a tendency to stop active operations to a certain degree in all

lines. But the Glenn pool field is far from being a dead one.

THE CHIEF INDUSTRY FOR YEARS TO COME

The *Ramona Herald*, published in one of Oklahoma's first oil fields, says of the general condition of the oil industry throughout Oklahoma:

Reports to the contrary notwithstanding, the oil industry is not dead. Reports which are going out from certain quarters seem to indicate that there was nothing doing in the entire field, and that drillers and tool dressers were threatened with starvation. While it is true that the work in the field is not being carried on to the extent that the producers had hoped, but it is to be remembered that the oil industry in Oklahoma is of such proportion that it would be within the range of possibility to completely shut down the work in all departments.

Operators have endeavored to drill as few wells as possible for the reason that it has been impossible to dispose of the production. But this was not always true and the great number of wells drilled at a time when there was a better market for the oil are yet producing in quantities that requires constant attention. Together with other lease work with the exception of drilling, there is much doing in oil circles on all leases.



Then, too, every week shows a number of completions. Tests are being drilled in different parts of the field adjoining producing leases and in rank wildcat territory. In parts of the field, line fights are yet being continued and production is being increased.

The present price of crude is working the greatest hardship and the producers, employees and the laity alike are experiencing the comparatively dull times resulting, but the oil is here, the people are here to care for it and for years to come oil will be one of the chief industries in this part of Oklahoma.



Top: Drilling an oil well by hand.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Middle: An aerial view of Halliburton Oil in Duncan.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom: An aerial view of Continental Oil Company in Ponca City.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





The intricacy of oil and gas plat maps often shows names of land owners and allottees as well as oil and gas companies in various locations around east-central Oklahoma in the mid-twentieth century.

COURTESY OF THE SAPULPA HISTORICAL SOCIETY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





OIL PRODUCTION FOR 1908

The U. S. Geological survey report places the production of oil in the United States for the year 1908 at 179,572,479 barrels, valued at \$129,700,258. The production for 1907 was 166,095,335 barrels valued at \$120,106,749. Following is the production by states for 1908:

States	Barrels	States	Barrels
California	44,854,737	New York	1,160,128
Colorado	379,653	Ohio	10,858,797
Illinois	33,685,106	Oklahoma	45,798,765
Indiana	3,283,629	Pennsylvania	9,424,325
Kansas	1,801,781	Texas	11,206,464
Kentucky and Tennessee	727,767	Utah and Wyoming	17,775
Louisiana	6,835,130	West Virginia	9,523,176
Michigan and Missouri	15,246	Total	179,572,479

MILESTONES IN THE OKLAHOMA OIL AND GAS INDUSTRY

BY DAN BOYD, OKLAHOMA GEOLOGICAL SURVEY

PRE-1859

- Oil seeps, known to Indians as “medicine springs,” identified in the Indian Territory.

1859

- First subsurface oil recovered, unintentionally, in salt well drilled near Salina in Mayes County.

1889

- The first intentional oil find made near Chelsea in Rogers County. Its production of one half barrel per day is used as ‘dip oil’ to remove ticks from cattle.

1897

- The Nellie Johnstone #1, the first commercial well drilled in Oklahoma, discovers the Bartlesville-Dewey Field in Washington County.

1900

- University of Oklahoma School of Geology founded by Charles N. Gould.

1903

- First commercial use of natural gas begins at a brick plant in Tulsa.

1905

- Glenn Pool oil field is discovered near Tulsa in Creek County. This field helps push State production from 4,000 to more than 22,000 barrels per day. Owned in large part by Henry Ford Sinclair, it became central in the formation of the Sinclair Oil Company in 1916.

1906

- Oklahoma Natural Gas Company is formed to deliver gas to Oklahoma City.



The Oklahoma History Center includes a massive outdoor exhibit commemorating the oil field pioneers of yesterday and today in 2011.

PHOTO BY ERIC DABNEY.





1907

- Oklahoma and the Indian Territories become the State of Oklahoma.
- Oklahoma becomes the largest oil-producer, with Tulsa claiming the title of “Oil Capital of the World.”

1908

- The Oklahoma Geological Survey is established by mandate of the State Constitution, with Dr. Charles N. Gould becoming its first director.



1910

- E. W. Marland founds Marland Oil Company, which merges with Conoco in Ponca City in 1929.
- Oklahoma Natural Gas Company installs the first compressor on a natural gas pipeline.

1912

- Cushing Field is discovered in Creek County. By March 1914 the field is producing 50,000 barrels per day, or one quarter of total State production.
- Henry L. Doherty consolidates operations in Bartlesville, forming what will become Cities Service Oil Company.



Top, left: An oil pool burns near Claremore, Oklahoma.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Top, right: The Nellie Johnstone #1.

COURTESY OF THE OKLAHOMA INDUSTRIAL DEVELOPMENT AND PARKS COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom, left: The glorious sight of a “gusher” nearly engulfs a wooden derrick in the Ardmore area in 1910.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Bottom, right: A Rumley Oil Pull stands in the Cushing Oil Field. The oil burning tractor was used to haul oilfield supplies from Cushing to the Drumright Field.

COURTESY OF THE IRA M. SPANGLER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.



Top: Healdton's crowded Main Street shortly after oil was discovered in the area.

COURTESY OF THE WESTERN HISTORY COLLECTIONS.

Middle: Cities Service Oil Company's experimental station at Bartlesville.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Bottom: In 1914 the U.S. Geological Survey produced this map of the Healdton oil field.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.



Opposite, top: This photo, from the November 2, 1916, issue of the Oil and Gas Journal, includes many of the state's influential oil men as they gathered in Tulsa to meet Assistant Secretary of the Interior Samuel Adams.

COURTESY OF THE JAMES KEMM COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Opposite, middle: The Oil Field near Nowata.

COURTESY OF THE DEVONDUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Opposite, bottom: A well-pulling crew at work in "Ragtown" in 1920. Shown are (from left to right) Lucian Bryant, Ira Patterson, and Lawrence W. Pryor.

COURTESY OF MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.



1913

- Healdton Field is discovered in Carter County. Producing more than 65,000 barrels per day in 1914, it eventually produces 360 million barrels.
- The first dual completion is made in Wacey Field, south of Tulsa.

1915

- The first market-demand proration law takes effect in Oklahoma, but does little to curb overproduction and ruinous price slumps.

1916

- Kinta Gas Field is discovered in Haskell County. Peak production, which occurred in 1971, was 450 million cubic feet per day.
- Garber Field is discovered in Garvin County. This field is the first investment in the petroleum industry made by Herbert



H. Champlin, founder of Enid-based Champlin Petroleum Co.

1917

- Phillips Petroleum Company is established in Bartlesville by Frank and L. E. Phillips.
- A gas repressuring operation in Nowata County is installed, making it the first secondary-recovery operation in the Southwest.
- Southwestern Association of Petroleum Geologists is established, which in 1918 becomes the American Association of Petroleum Geologists.

1918

- The Oklahoma part of Guymon-Hugoton Gas Field, the largest in North America, is discovered in Texas County. Ultimate recovery for this field is estimated at 70 trillion cubic feet.

1920

- Burbank Field, where production will peak in 1923 at 72,000 barrels per day, is discovered in Osage County.
- Halliburton Oil Well Cementing Company, headquartered in Duncan, is founded by Erle Halliburton.

1921

- Lloyd Noble enters the oil industry and establishes Ardmore-based Noble Drilling Company.
- First field tests of the reflection seismograph are conducted near Belle Isle, a suburb of Oklahoma City.





Top: The Halliburton Company office in Healdton, 1950.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Middle: The headquarters of Halliburton Oil Well and Cementing Company in Duncan.

COURTESY OF THE DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

Bottom: Newspaper headlines often reported the news of oilfield pioneers and the numerous fields that were springing up across Oklahoma.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.



1923

- The Greater Seminole Field is discovered. This prolific area, centered near Bowlegs in Seminole County, will eventually include 6 major oil fields that will produce 1.3 billion barrels.

1924

- Introduction of rotary drilling to Oklahoma. This technique requires fluid in the wellbore, facilitating pressure control and reducing the frequency of blowouts.

1925

- Phillips Petroleum invents the fractionation process to remove previously wasted liquid hydrocarbons from natural gas.

1927

- State oil production peaks at 762,000 barrels per day.

1928

- Oklahoma City Field is discovered and soon becomes the nation's largest oil producer.
- Oklahoma Corporation Commission issues the first statewide proration order to reduce production and elevate oil prices.

1929

- The Oklahoma Corporation Commission orders a statewide, thirty-day shutdown of production.
- Wilburton Gas Field is discovered in Pushmataha County. The field reached peak production of 400 million cubic feet per day in 1990 and has produced over two trillion cubic feet.
- James L. Anderson and Robert S. Kerr form Anderson & Kerr Drilling Co. in Ada, Oklahoma. In 1946, under the direction of Robert S. Kerr and Dean A. McGee, it becomes Kerr-McGee Oil Industries Inc.

1930

- The "Wild Mary Sudik", a development well in Oklahoma City Field, blows out. The most famous blowout in the history of the State, the well flowed an estimated twenty thousand barrels per day. Strong winds blew oil as far as Norman, eleven miles south.
- South Earlsboro Field, in Seminole County, is discovered through the use of reflection seismography.
- Mocane-Laverne Gas Field is discovered in Beaver County. Eventually becoming the second largest gas field in the State, the



field will reach peak production in 1967 at 700 million cubic feet per day.

1931

- The first water-flood operation is started in Oklahoma in Rogers County. Widespread acceptance of the method by operators did not occur until 1935, when water-flooding produced about 50,000 barrels of oil.
- Governor "Alfalfa Bill" Murray uses the Oklahoma National Guard to shut down all oil production in order to raise prices to \$1 per barrel.



1933

- The Oklahoma Corporation Commission issues "Rules of Practice and Procedure for the Conservation of Oil and Gas".

1935

- Interstate Oil Compact Commission is created with headquarters in Oklahoma City. The commission is designed to curtail U.S. oil production to match demand, thereby reducing price volatility.
- Oklahoma passes the first well-spacing law to regulate spacing unit size.



Top, left: A granite historical marker stands in Seminole as a testament to the field's abundant surplus of oil for America. The marker reads in part, "Oil discoveries brought an estimated 20,000 oil field workers to the area. Transforming Seminole into the last of the oil boom towns..."

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Above: Large storage tanks were built at this site near Bowlegs in 1926 to hold the rapid influx of oil that was being produced in the area before it could be shipped out by pipeline and tank car.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

Below: The Mary Sudik, a "big wild oil well."

COURTESY OF THE IRA M. SPANGLER COLLECTION, OKLAHOMA HISTORICAL SOCIETY.





Above: In 1950, pioneer driller Bob Stuchel returned to the site of the first oil well drilled in Carter County, at Oil Springs on Oil Prairie north of Lone Grove.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Below: Crews work to secure a well at the Parker Drilling Company rig #1 near Lake Murray in 1960.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.



1955

- The Oklahoma Independent Petroleum Association is founded in Oklahoma City.

1963

- Oklahoma natural gas production exceeds oil production in energy equivalency.

1970

- Combined oil and gas production in the State peaks at 1.44 million barrels of oil equivalent per day.

1972

- Oklahoma becomes home to the world's deepest hole after Lone Star Producing Company's No. 1 Baden unit is drilled at 30,050 feet (5.69 miles; 10,016 yards; 360,000 inches) in the Anadarko Basin. At a cost of \$5.5 million, the well includes more pipe than nearly any other well in the world.

1974

- The world's deepest well, the GHK Bertha Rogers #1-27 in Washita County, is drilled to 31,441 feet where it encounters molten sulfur in the Arbuckle Formation.

1978

- The Natural Gas Policy Act takes effect, deregulating prices and allowing them to increase with demand.

1981

- The average annual price of Oklahoma crude reaches a high of \$35.18 per barrel.

1982

- Drilling activity in the State reaches an all-time high with more than twelve thousand well completions.

1983

- The average annual gas price in Oklahoma reaches \$2.80 per thousand cubic feet.

1990

- State gas production peaks at 6.2 billion cubic feet per day.

1995

- The average annual price of Oklahoma natural gas reaches a modern low of \$1.43 per thousand cubic feet.

1996

- The first large-scale enhanced oil recovery operation in the State using carbon

dioxide is started by Mobil in Postle Field in Texas County. In 1999 this project increased field production eight thousand barrels per day.

1997

- Potato Hills Gas Field is discovered by GHK in Latimer County. Reaching peak production in 2000 at 120 million cubic feet per day, this field is the largest Oklahoma discovery in decades.

1998

- The average annual price of Oklahoma crude reaches a modern low of \$13.12 per barrel.



Above: The Oklahoma Tax Commission compiled this list of counties in Oklahoma, which reflects the number of barrels produced per county and the state total in 1962.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Left: Crews work near Ardmore, 1963.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.



OKLAHOMA OIL AND GAS INDUSTRY FIRSTS

The Oklahoma Historical Society has helped preserve the history of oil and gas exploration in the state by placing historical markers at the site of famous firsts. Among the Oklahoma Firsts in petroleum history are:

OKLAHOMA'S FIRST COMMERCIAL OIL WELL

Nellie Johnstone No. 1, first commercial oil well in Indian Territory, completed April 15, 1897, by the Cudahy Oil Company, on the south bank of the Caney River, north of downtown Bartlesville.

STATE'S FIRST OIL REFINERY

Muskogee Oil Refining Company, organized in March 1905, built a "finishing plant" near Muskogee in November 1905. It soon was producing lamp kerosene, lubricating oil and industrial fuel—the beginning of oil refining in Oklahoma, a leading industry today.

FIRST GAS-PROCESSING PLANT WEST OF THE MISSISSIPPI RIVER

The gas-processing industry west of the Mississippi River had its beginnings in south Tulsa in 1909. At the D. W. Franchot and Company plant, liquid hydrocarbons were extracted from gas produced with oil in the surrounding Glenn Pool. By 1920, 315 plants had been built in Oklahoma.



"Ready to shoot" an oil field well at
Nowata, c. 1908.

COURTESY OF THE DEVON/DUNNING PETROLEUM
INDUSTRY COLLECTION, COURTESY OKLAHOMA
HISTORICAL SOCIETY.



OKLAHOMA'S FIRST WATERFLOOD

Injection of water into an oil reservoir to increase recovery was first attempted in Oklahoma on an oil lease south of Nowata and west of Chelsea. From that effort, a recovery method previously used in eastern fields was adapted to conditions found in this area. Since then, waterflooding to obtain greater oil recovery has spread to adjoining states and around the world.

Bert Collins developed the initial waterflood, experimental in nature, on a shallow producing property in May 1931, on a Carter Oil Company lease. The test was encouraging and the method was applied to other oil reservoirs.

HEALDTON: OKLAHOMA'S FIRST STATE-REGULATED OIL FIELD

Production of crude oil from the newly discovered Healdton field flooded the market with an oversupply of petroleum. Protesting that pipeline purchases were inadequate, producers claimed they were being deprived of individual rights to produce and sell their share of the field's production.

In response, the Oklahoma Corporation Commission, in May, 1914, ordered the pipeline carrier to increase purchases of produced oil, provide facilities for rail shipment, and build field tankage. The pipeline was further ordered to purchase oil ratably and equitably from Healdton producers.

WORLD'S FIRST SCHOOL OF PETROLEUM GEOLOGY

In 1900, Charles Newton Gould, known as the "Father of Oklahoma Geology," established a school of geology at the University of Oklahoma. It became the first school of petroleum geology in the world.

BARTLESVILLE ENERGY TECHNOLOGY CENTER

Petroleum technology in the United States, as it is known today, began in Bartlesville on



March 28, 1918, with the designation by the United States government of Bartlesville as the site for what was later known as the Bartlesville Energy Technology Center. Known first as the Petroleum Experiment Station, the Center provided pioneering scientific and engineering research to industry.

OIL IN THE CUSHING-DRUMRIGHT AREA

Discovered in March 1912, by Tom Slick and C.B. Shaffer, the Cushing field became one of the greatest oil discoveries of the early 1900s—ranking as the nation's largest oil field for the next eight years. Production peaked in May 1915 at 300,000 barrels daily. This glut of oil:

- Played havoc with domestic and international oil markets,



Above: Derricks spring up across Healdton, 1920.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

Below: Wagon teams prepare to move equipment into the Oklahoma oil fields of 1910.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

THE GOLDEN YEARS OF PRODUCTION

More than 8.8 billion barrels of crude were pumped from the various pools of the Mid-Continent Region from 1900 to 1935. In 27 of these 35 years, this region ranked first among the nation's major producing areas. In the years between 1918 and 1922 and between 1924 and 1935, the Mid-Continent Oil Region poured forth more than half of all the crude produced within the United States. Oklahoma was consistently a leader in production within the Mid-Continent Region.

For 22 of the years between 1900 and 1935 it ranked first among the Mid-Continent Region states in production, and for nine years it was second.

- Led to above ground storage exceeding 1.75 million barrels of unsold oil with resultant loss of valuable volatiles,
 - Helped bring maturity to Oklahoma's oil industry and an awareness of conservation needs,
 - Turned Cushing into a boomtown and vital supply center for area oil operations,
 - Made the Cushing area a major processing center with 23 refineries,
 - Brought into being a new town, Drumright, located near the discovery well,
 - Provided much of the increased U.S. oil supply during World War I that prompted Britain's Lord Curzon to state, "The Allies floated to victory on a sea of oil!"
- In 1919 the Cushing-Drumright area accounted for 17 percent of the United States and three percent of the world's production of oil.



In 1914, black smokes billows above the town of Drumright as crude stored in open pits catches fire in the area.

COURTESY OF THE BARTLESVILLE PUBLIC LIBRARY.



PATRIARCH PETROCHEMICAL PLANT OF THE SOUTHWEST

The manufacture of chemicals from petroleum had its beginnings in the Southwest at the Tallant gas processing plant located near Barnsdall on Bird Creek. Built in 1926 by a Cities Service Company subsidiary, the plant process was the research answer to red rust produced in transmission to market of natural gas from the Burbank, Oklahoma field.

The liquid by-product of Burbank gas treatment was first processed into formaldehyde preservative and alcohols. Processing refinements produced other petrochemicals used in solvents,

WHAT A BARREL OF CRUDE OIL MAKES

The following is a list of products rendered from a barrel of crude and gallons of products made.

Gasoline	19.4
Distillate Fuel Oil (Includes both home heating oil and diesel fuel.)	9.7
Kerosene-Type Jet Fuel	4.3
Coke	2.0
Residual Fuel Oil (Heavy oils used as fuels in industry, marine transportation, and for electric power generation.)	1.0
Liquefied Refinery Gases	1.9
Still Gas	1.8
Asphalt and Road Oil	1.4
Petrochemicals Feedstocks	1.1
Lubricants	0.5
Kerosene	0.2
Other	0.3

Note: One barrel contains 42 gallons of crude oil. The total volume of products made is 2.6 gallons greater than the original 42 gallons of crude oil. This represents "processing gain."

SOURCE: AMERICAN PETROLEUM INSTITUTE.



Cities Service Company's plant at Tallant was the "petrochemical patriarch of the Southwest," the first of its kind in Oklahoma.

COURTESY OF THE OKLAHOMA HISTORICAL SOCIETY.

photographic chemicals, preservatives, medical products, refrigerants, safety glass, adhesives, and disinfectants.

World War II shifted production of Tallant petrochemicals to high-priority war effort necessities, contributing to development of all-weather plywoods for assault boats, pontoon

bridges, torpedo boats, planes, and aircraft carrier decking. Another Tallant petrochemical was used in making shatterproof glass that protected crews of bombers and other war craft. On battlefields, derivatives of Tallant petrochemicals gave relief from pain to the injured, and went into wartime medicines.

PETROCHEMICALS RAW MATERIALS FOR MORE THAN THREE THOUSAND EVERYDAY PRODUCTS

Oil does a lot more than simply provide fuel for our cars and trucks, keep our homes and offices comfortable, and power our industries. Oil is a key ingredient in making thousands of products that make our lives easier—and in many cases—help us live better and longer lives. From lipstick to aspirin and diapers to roller blades, petrochemicals play a vital part. Here are just a few examples:

Food preservatives
Soft contact lens
Antihistamines
Shampoo
Hair Dryers
Clothing
Safety glass
Toothpaste
Flowerpots
Blenders
Life jackets
Dishes
Anesthetics
Vitamin capsules
Dyes
Hang gliders
Patio screens
Foul weather gear

House paint
Insecticides
Compact discs
Piano keys
Perfumes
Sunglasses
Tents
Nylon rope
Glue
Photographs
Balloons
Audio Cassettes
CD Players
Containers
Credit Cards
Deodorant
Dinnerware
Eyeglass Frames

Infant Seats
Medical Equipment
Pantyhose
Roller Blades
Shaving Cream
Syringes
Telephones
Toys
Aspirin
Baby Strollers
Candles
Computers
Crayons
DVDs
Food Storage Bags
Ink

SOURCE: AMERICAN PETROLEUM INSTITUTE.

OIL AND GAS INDUSTRY TERMS

Barrel: A unit of volume equal to 42 U.S. gallons.

Casinghead gas (or oil well gas): Natural gas produced along with crude oil from oil wells.

Crude Oil: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities.

Cubic foot (cf), natural gas: The amount of natural gas contained at standard temperature and pressure (60 degrees Fahrenheit and 14.73 pounds standard per square inch) in a cube whose edges are one foot long.

Dry hole: An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Field: An area consisting of a single reservoir or multiple reservoirs all grouped on, or related to, the same individual geological structure feature and/or stratigraphic condition.

Gas well: A well completed for production of natural gas from one or more gas zones or reservoirs. Such wells contain no completions for the production of crude oil.

Mcf: One thousand cubic feet.

Methane: A colorless, flammable, odorless hydrocarbon gas (CH₄), which is the major component of natural gas.



Left: An oilfield “Christmas tree” like this twenty-six foot menagerie, which stands on the grounds of the Oklahoma Historical Society in Oklahoma City, are “typical of those found on high-pressure natural gas wells” in the state. The tree’s base is first installed on the casinghead as a well is being drilled. After the well is completed, the valves are added to control the flow of oil and gas.

PHOTO BY CLAIRE DABNEY.



Right: A red granite marker stands just south of the state capitol building and commemorates the lasting influence of oil upon the great state of Oklahoma.

PHOTO BY CLAIRE DABNEY.





Oil reservoir: An underground pool of liquid consisting of hydrocarbons, sulfur, oxygen, and nitrogen trapped within a geological formation and protected from evaporation by the overlying mineral strata.

Oil well: A well completed for the production of crude oil from at least one oil zone or reservoir.

Operator (oil and/or gas well): The person responsible for the management and day-to-day operation of one or more crude oil and/or natural gas wells.

Petroleum: A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids.

Petroleum refinery: An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Pipeline (natural gas): A continuous pipe conduit, complete with such equipment as valves, compressor stations, communications systems, and meters for transporting natural and/or supplemental gas from one point to another, usually from a point in or beyond the producing field or processing plant to another pipeline or to points of utilization.

Producer: A company engaged in the production and sale of natural gas from gas or oil wells with delivery generally at a point at or near the wellhead, the field, or the tailgate of a gas processing plant.

Refinery: An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and oxygenates.

Reservoir: A porous and permeable underground formation containing an individual and separate natural accumulation of producible hydrocarbons (crude oil and/or natural gas) which is confined by impermeable rock or water barriers and is characterized by a single natural pressure system.

Wildcat well: a well drilled to test for the present of oil or gas in a previously undeveloped area.

SOURCE: ENERGY INFORMATION ADMINISTRATION



*The small town of Clemscot, Oklahoma in
Carter County in the 1920s.*

COURTESY OF THE MCGALLIARD COLLECTION,
ARDMORE PUBLIC LIBRARY.

From the June 1925 issue of *The Rig and Reel Magazine*, “A magazine for all who are interested in oil production.”

“COUNTY SURVEYOR TREATS HIMSELF”

This is just a little sketch. No plot, no moral. It is one of the little incidents that happen in connection with oil production.

The scene is in southern Oklahoma. Never, probably, in the history of oil development down there were the members of the fraternity more glad to congratulate a land owner than they were C. W. Clay. Clay has been county surveyor of Carter County for about twelve years. And in that time he has staked hundreds of locations, on which numerous oil wells were brought in—many in the gusher class.

But not until a month ago was he able to point to any of them with personal pride. Now he is a royalty owner. The Amerada Petroleum Corporation brought in a 160-barrel producer of 40 gravity oil on Clay's farm. It extended the Brock field three-eighths of a mile. It was the first test ever put down on his land, and it's netting him a neat income.

Residents in Carter County will tell you that Clay's democratic nature and jovial comradeship have made him one of the most popular men in that section—a big reputation in Oklahoma.

Clay is past the half century mark, a picture of health, with a ruddy complexion painted by nature and her great outdoors. He gets about with the agility of a youth.

Practically the only time this genial surveyor is at home is during the hours allotted by humanity for sleep. At all other times he is either staking locations or tramping the woods that border on the Arbuckle Mountain foothills.

The ministry brought Clay to Oklahoma. He preached at Lebanon, and was at that time a member of the Indian Mission. From the ministry he turned to farming and surveying. Since 1913 he has been county surveyor. He has been practically unopposed in every election and has apparently become a permanent fixture in the office.

The Amerada company started on two other wells on Clay's acreage right away and will probably drill more.



The farm of Charles W. Clay.

COURTESY OF THE MCGALLIARD COLLECTION, ARDMORE PUBLIC LIBRARY.

From the June 1925 issue of *The Rig and Reel Magazine*, “A magazine for all who are interested in oil production.”

BILL

By Will Ferrell

Driller Bill's a hard-boiled guy.
You never hear him sob nor sigh.
He wears that copper-plated smile
And chews his ounce of “scrap” the while.
I've never seen him lose his head,
But now and then a flash of red
Will deepen on his stubbled cheeks
And then recede before he speaks.
Then, when he speaks, a little grin
Steals down the lines around his chin,
But in his eyes of sober gray,
There's just a hint of Hell to pay.

Bill's six feet, two—no flesh to spare.
Has streaks of silver in his hair.
Not old—Bill's only thirty-four,
He looks it all and maybe more,
But men grow old who play the role
Of driller in a deep test hole.
There's heavy tools and lonely hours;
The strain that comes with grilling tow'rs;
Of thousands risked upon his skill
To find the deep sand with his drill.
He gets, perhaps, ten bucks a day
To find a million dollar “pay.”

“Salright,” says Bill, “that fair enough.
I'm quite content to do my stuff.
Fer instance, when the hole is dry,
The men who lose it seldom cry.
They pay in full, then with a grin,
'Move over, Bill, we'll try ag'in.'
Now when a guy's as game as that,
I'd hock my 'go-to-meetin' hat
To he'p him out. If he don't cry,
Then why in Hell, m'friend, should I?”



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OKLAHOMA ENERGY RESOURCES BOARD



Above: The OERB board of directors, c. 1997.

Below: Board member Mike Cantrell delivers a message during the OERB's first-ever press conference.

The Oklahoma Energy Resources Board (OERB) was organized nearly twenty years ago when a group of far-sighted oil and natural gas leaders realized something needed to be done to preserve the industry and combat a generally negative perception of the oil industry.

The idea actually germinated for more than a decade before the OERB was founded. Board member Mike Cantrell explains that it took ten to fifteen years to get anything done, “because we didn’t have a plan.

“Success isn’t obtained without a well-laid plan, so the first effort to collect a voluntary donation for an industry-wide public relations effort failed miserably,” Cantrell continues. “But if that first try had not failed so big, we would not have the heritage of

failure, which is important. At least, we knew what did not work.”

Fellow oilman and cattle rancher, Harlan Krumme, suggested a voluntary check-off similar to that used by beef and wheat producers would be more effective.

Once industry leaders involved in the effort developed a statewide pilot program, it drew strong support from Oklahoma’s independent producers. However, some of the major oil companies opposed the plan.

“Once again, we went back to the drawing board,” explains Cantrell. “This time, we included the majors in our discussions, as well as the royalty owners. Everyone finally came together, and a plausible program emerged that we could all be proud of and that our lawmakers could support and enact.”

The original state statute creating the OERB was signed into law and became effective in October 1992. State Representative Kevin Easley and State Senator Stratton Taylor were instrumental in passage of the legislation. “Never has a piece of legislation been more valuable to our industry, and the fruits of their labor are paying off,” comments Cantrell.

The initial meeting of the Oklahoma Energy Resources Board was held on October 13, 1992 in the State Capital Building. However, the funding structure for the program was not established until 1993—a voluntary two-cents per barrel of oil paid by producers and royalty owners.

From the beginning, the OERB Board, comprised of twenty-one oil and natural gas industry representatives, was very involved. According to Mike Terry, OERB’s first executive director, they were so interested in making the OERB a success because it was the first time an oil and natural gas check-off program had ever been tried.

“Many industry leaders had dreamed for years and years about a program like this,” says Terry. “To say they were passionate would be an understatement. They loved the concept. They were like a bunch of race horses—they couldn’t wait to get started.”



Almost immediately, the OERB started using contributions to bring the vitality and environmental responsibility of the Oklahoma oil and natural gas industry to light through positive action and education.

At the heart of the OERB's mission is the ongoing commitment to clean up Oklahoma's orphaned and abandoned well sites. Many of these sites were left to ruin by operators who have long since disappeared. The OERB's environmental restorations cost landowners or taxpayers nothing. To date, the OERB has restored more than 11,500 orphaned and abandoned well sites, employing Oklahoma contractors to complete the jobs.

The positive impact of these efforts is evident in restored pastures, hillsides and ponds, and on the faces of landowners across the state.

The impact of the OERB increased dramatically in 1996 when the legislature changed the funding mechanism from a two-cent voluntary assessment on crude oil alone to include a one-tenth of one percent assessment on both oil and natural gas. According to Terry, changing the assessment was the single most significant step ever taken by the organization, and he gives cofounder Pete Brown much of the credit.

"A lot of board members wondered if the time was right, but Pete and other board members said natural gas was more and more important to Oklahoma," Terry explains. "The funding of the OERB was going to suffer if the natural gas element was not added to the mix."

The change in funding more than tripled contributions to the OERB, allowing expansion of all its programs. Today, the efforts of the OERB are focused on four areas: environmental restoration of abandoned or orphaned well sites, public education through media outreach, education of students and conservation education.

The environmental program is still the hallmark of the organization. Since 1994, more than \$68 million in voluntary contributions has been used to restore more than 11,500 abandoned well sites. These efforts have brought the land back to productivity and reestablished the livelihood and family legacy that only land can provide.

The environmental program remains a top priority for the OERB, with at least fifty



percent of its annual budget allocated to restoring abandoned well sites. Environmental restoration has now been carried out in sixty-seven of Oklahoma's seventy-seven counties.

An OERB awareness campaign, based on the success of the environmental program, allowed the industry to inform the public about the success of the program and the importance of returning land to a usable state. The advertising campaign, considered by professionals to be one of the most successful of its type ever created, was conducted through the eyes and words of those who experienced the benefits firsthand. Emotions ran high as landowners explained how the cleanups restored their heritage and family legacies.

The OERB has emphasized the importance of good environmental stewardship since the beginning, not only in cleaning up abandoned well sites, but in conserving resources as well.



Above: The OERB reached a milestone restoration of ten thousand sites in December 2009. The site is now the home of a newly constructed fire station in the downtown Oklahoma City area known as Bricktown.

Below: To date, more than 11,500 abandoned well sites have been restored by the OERB. This map shows where the activity has taken place.





Above: The story of Ebenezer Baptist Church was just one of many testimonies told by landowners in a series of commercials about OERB restoration. See Ebenezer's story and others at www.oerb.com.

Below: Students across the state are being taught science and energy basics through OERB curricula and children's books.



The OERB's conservation education program highlights simple, inexpensive ways Oklahomans can save energy and money. The conservation education program includes television spots and a section on the organization's website—www.OERB.com.

As part of this program, the OERB contributed \$1.75 million to energy conservation assistance for Oklahomans in need in conjunction with the Oklahoma Department of Commerce's Weatherization Assistance Program.

The most important outreach the OERB has created over the last nearly two decades may be found in classrooms across Oklahoma.

Seeing a serious need to develop science-based energy education programs, the OERB developed a program called Petroleum Professionals in the Classroom, or Petro Pros.

The Petro Pros program is a hands-on, interactive presentation that teaches students about the earth and fossil fuels. Volunteers from the industry use rocks, fossils, core samples and geological maps to show energy experiments and explain basic concepts about the exploration and production of oil and natural gas.

In putting the program together, the OERB examined science books and found there was very little information about energy, and much of that information was negatively biased. A survey of Oklahoma middle school science teachers revealed that nearly two-thirds of the teachers believed that fossil fuels would not be the primary form of energy by the year 2020.

"It was unimaginable that those educating our students believed alternative sources would provide the majority of our energy needs," says OERB Executive Director Mindy Stitt. "Because of this research, the OERB began the effort of educating Oklahoma students about the energy industry and its role in Oklahoma and the nation."

Thus, in 1996, the OERB gathered educators and industry professionals together to draft its first science and energy curriculum for elementary school students called Fossils to

Fuel. The curriculum is a hands-on way for students to learn basic concepts about how energy is transformed from the sun, to carbon-based matter, to petroleum and—ultimately—into our homes and schools.

Following the success of Fossils to Fuel, the OERB went on to create seven other curricula that span kindergarten through twelfth grade. All were developed by educators, university specialists, industry professionals and OERB representatives, and endorsed by the Oklahoma State Department of Education and meet the state education department requirements.

The OERB also provides Oklahoma teachers with a well site safety program and free field trips to Oklahoma museums. The OERB's student education programs are now being used in ninety-five percent of Oklahoma's school districts. On average, OERB reaches more than one hundred thousand new students annually through its energy curricula and Petro Pros presentations.

Because of the high demand for industry professionals and a threat of mass turnover in an aging industry, the OERB's two most recently established programs focus on encouraging interest in petroleum careers.

In 2006, the OERB established a college scholarship program for students majoring in petroleum engineering, geology and energy management. Since its inception, the OERB has awarded nearly \$2 million in college scholarships to students at the University of Oklahoma, Oklahoma State University and Tulsa University.

In 2007, the OERB created its PetroTech program, which trains individuals to become geo techs, land techs and engineering techs. Working with Francis Tuttle Technology Center in Oklahoma City and Tulsa Technology Center, the OERB is helping train people who are interested in a career in the industry.

Thousands benefit from the oil and natural gas industry's presence in Oklahoma. Since 1993 the OERB has been educating Oklahomans about the importance of the industry. Using television, radio, Internet and now social media, the organization is able to highlight the industry's economic and educational impact.

Through public education campaigns, the OERB shares information about the 300,000 jobs supported by the industry and the billion dollars annually in gross production taxes generated by oil and natural gas.

"It's important for us to understand the economic impact that the oil and natural gas industry has on this state," says Stitt. "Gross production taxes pay for schools, roads, bridges and many other programs that make Oklahoma a vibrant state."

OERB offices are located at 3555 Northwest Fifty-Eighth Street, Suite 430 in Oklahoma City, Oklahoma 73112. For more information, please visit www.oerb.com.



Below: Teachers in ninety-five percent of Oklahoma's school districts have trained to teach OERB's energy and science curricula.

Bottom: OERB Chairman David House releases the finding of a 2009 economic impact report during a press conference. The study, commissioned by the OERB, shows the oil and natural gas industry provides about \$51 billion in goods and services for the state of Oklahoma.





SHARING THE HERITAGE

*Historic profiles of businesses,
organizations, and families that have
contributed to the development and continued
growth of the Oklahoma oil and gas industry*

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COURTESY OF THE RAY JACOBY COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.



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As the bright Oklahoma sun sets across the plains, rig sites around the state stand as a testament to the countless pioneers and hard-working laborers in the industry who have helped secure a magnificent future for generations of Oklahomans.

NEW DOMINION, LLC



Above: David J. Chernicky, New Dominion's founder and owner.

PHOTOGRAPH COURTESY OF © JOHN JERNIGAN/
POINT OF VIEW.

Opposite, top: New Dominion requires abundant quantities of high-quality electricity to run its well pumps and its saltwater disposal system. Frequently, this requires the company to upgrade nearby electrical distribution infrastructures with new poles and lines before wells are drilled. These upgrades, such as this section pictured at sunrise near a drilling location in the company's Golden Lane Field, also improve power reliability for nearby residents.

Opposite, bottom: New Dominion's early successes in developing the technology it uses to recover oil and natural gas from conventional resource plays prompted investors to build this natural gas processing plant near Paden. Today, the plant is owned and operated by Copano Energy, L.L.C.

New Dominion, LLC, is a growing, independent exploration and production company that economically and dynamically harvests known reserves of oil and liquids-rich natural gas from conventional resource reservoirs. A fully integrated company, it promotes cycles of efficiency through large forward investments in infrastructure using strategic alliances fortified by integrity and respect with its working interest partners, mineral rights owners, surface rights owners and vendors. New Dominion's guiding principles of planning for and investing in its long-term future applies to all aspects of the company, including its most valuable asset—the employees. New Dominion values its employees and celebrates their contributions and excellence by cultivating a diverse and fair environment where they are empowered and encouraged to participate in a decision-making process that is essential to the sustainable growth of the business. In return, New Dominion accepts nothing less than wholehearted commitment that extends to the company's partners. New Dominion encourages its executives and employees to volunteer time and effort to help improve the communities where it operates. By observing these principles, the company continues a noble tradition that started in 1998 with its founding by owner David J. Chernicky. As New Dominion's owner, Chernicky has used trend-setting insights, great vision

and tenacity to recover oil and liquids-rich natural gas during his thirty years in the field. The bust in the nation's oil and natural gas industry during the 1980s did not slow Chernicky down; rather, he overcame the downturn by using his methodology and technology to generate a comprehensive track record of developing oil and liquids-rich natural gas reserves from conventional resource reservoirs. While doing so, he discovered entire fields as he worked with other companies prior to founding New Dominion.

Chernicky mastered the ability to use solution-based reasoning to attack problems, a skill that makes him one of Oklahoma's most exciting and dynamic entrepreneurs today. Resourcefulness is in his blood, while hard work and responsibility remain key components of the fabric of his family's daily life. Chernicky is one of ten children born to Thomas Chernicky, a first-generation American from Pennsylvania whose parents emigrated from the Ukraine, and Lillian Chernicky of Yukon, a second-generation American whose family came to the United States from what is known today as the Czech Republic. In order to feed his rural Pennsylvanian family during the Great Depression, Chernicky's father hunted on the very same land where the oil industry's founding father, George Bissell, and "Colonel" (as he was frequently called) Drake first drilled for the original "rock oil." Chernicky displayed his innate drive to master anything he does when he was very young. He started working at age ten by mowing yards and throwing newspapers. Before long, he was throwing multiple routes as an independent contractor. It was during this time that Chernicky learned the basic principle of leverage. Later, he learned how to manage employees and business operations while working at an area restaurant.

Upon graduating from high school, Chernicky enlisted in the U.S. Air Force and served at posts both within the U.S. and overseas. These experiences offered him an opportunity to travel throughout Western Europe and, more crucially, gave him a working knowledge of the strategic advantage

offered by the building and controlling of internal systems through technological innovations. When he completed his military service, Chernicky attended the University of Oklahoma. A serendipitous encounter with a classmate led to his introduction to an independent geologist, which sparked his interest in geology. After completing his first geology class, Chernicky was hooked. He spent more than two years under the mentorship of another independent geologist in Oklahoma City, where he learned how to read well logs and how to contour underground geological features. During a summer internship with Texas Oil and Gas Corp. in Denver, Colorado, Chernicky learned everything he could about the geology of the Rocky Mountains. He earned a bachelor of science in exploration geophysics with honors in fewer than four years. He graduated at the height of the nation's oil boom in 1978, and pondered either attending graduate school or taking one of a dozen jobs offered to him by companies that were hunting oil and gas in the nation's mid-continent and the Gulf of Mexico. He took a job with Marathon Oil in Casper, Wyoming, working as a geophysicist in the company's satellite location in North Dakota's Williston Basin. Less than a year later, Amoco Production Company in Denver, Colorado, called with a job offer that Chernicky accepted. For Amoco, he worked first as a geophysicist and then as a geologist in an attempt to salvage a prospective acreage





New Dominion strives to limit the physical impact of its drilling and production activities on landowners, as well as on people who live and work nearby its well locations. This pad, at the corner of SE 44 and Bryant in Oklahoma City, is designed to support the drilling, completion and production of up to a dozen wells.

block on the Ringling Anticline in western Montana. At the end of 1980, a school friend from college recommended he return to Oklahoma to work as a consulting geologist for several independent exploration and production companies.

Through these relationships, Chernicky developed a string of successful wells and fields in north-central Oklahoma, including the Pawnee Lake Red Fork Field near Carney in Lincoln County, which would become the initial Master Project field for New Dominion nearly twenty years later. The resource play was discovered by John Ames of Houston, whom Chernicky credits for pioneering the specialized recovery processes New Dominion uses today, and was being jointly developed by Ames and Benson Mineral Group of Denver. The area's available geological data became an integral model consistently used by Chernicky to evaluate future development areas. The data identified the field as a conventional resource play where oil and gas were held in situ, trapped in place by a higher-than-normal saltwater saturation. While the area lacked needed saltwater disposal lines and wells and the electrical capacity to run producing and disposal well pumps, he still convinced a partner company to drill and produce nearly two dozen oil and gas wells and related saltwater disposal wells. The achievement was notable, given Penn Square Bank recently had failed and oil and natural gas prices had collapsed. Most of the wells were economic. More important to Chernicky, the project provided him with a

basic education on how to develop large-scale, conventional resource plays. "That's where I learned the basics of everything I am doing," he said, "including the use of centralized tank batteries, acquiring multiuse right of ways, owning your own infrastructure, owning your own disposal wells, and buying the surface land rather than leasing it. You always have to make sure you have a gas processing plant before you start drilling, and you have to make sure you have electricity: Good, quality, three-phase power to run your pumps." Chernicky then began developing a similar reservoir, the Mount Vernon field, in northern Lincoln County. He eventually would rescue this project from bankruptcy by persuading Altex Resources to get involved. More than sixty economic wells in a row were drilled using Chernicky's methodology and production techniques, and bankruptcy creditors received an ultimate return of 110 percent.

The companies Chernicky worked with to build his methodology and technology have set oil and gas production milestones within Oklahoma, appearing annually in top oil and natural gas producer lists generated by the Oklahoma Corporation Commission. Since 2000, these companies have cumulatively generated an annual average of 2.4 percent of the produced barrels of natural gas liquids and oil, and an annual average of 1.8 percent of the natural gas produced from Oklahoma. They also have produced more than 13.5 million barrels of natural gas liquids and oil and more than 287 billion cubic feet of liquids-rich natural gas.

Chernicky formed New Dominion in 1998 starting with four employees, including an on-staff geologist, to continue developing the Master Project near Carney. Joined by other partners in late 1999, New Dominion developed that field to its full potential. He also sought to develop an area he knew held potential between Prague and Seminole, which he called Golden Lane. In April 2002 he and his partners separated. Chernicky reformed New Dominion to target the Golden Lane Field as its primary focus. The company located its field headquarters in the historic Centerview School south of Prague, located its corporate headquarters in Tulsa, and built offices in two other fields. To date, more than three hundred wells have been drilled and produced by New Dominion within the Golden Lane field. The company has drilled more than a dozen wells targeting the Arbuckle Formation in south Oklahoma City, and a dozen wells targeting the Hunton Formation near Luther. By the end of 2011, New Dominion had enjoyed a solid decade of growth, employing more than eighty workers.

Hydrology is the science that supports the methodology Chernicky uses to recover oil and liquids-rich natural gas. The economic recovery of hydrocarbons relies upon developing conventional resource plays using a system in which producing wells work collectively to create a laminar flow, capturing oil and liquids-rich gas brought up with saltwater and sending the water back into the ground using disposal wells. Wells completed today produce from 640-acre units, and are horizontally drilled. Production is started on each new well by installing a submersible pump powered by electricity. The pump pushes fluids to a three-phase separator which measures and separates the produced amounts of oil, liquids-rich natural gas and water. The oil is gathered and stored for sale. The liquids-rich natural gas flows into collection and gathering lines, leading to strategically-placed processing plants where the product is refined and shipped to end-users. The water is sent to disposal wells through networks of pipelines. The wells and pipelines are capable of being controlled either onsite or remotely. New Dominion

possesses strong geologic and engineering expertise in horizontal well design, submersible pump placement, fluid and hydrocarbon separation, and saltwater disposal processes. This expertise creates consistent production efficiencies that make an ultimate recovery of hydrocarbons predictable and profitable.



A well service company goes about its business of completing two of New Dominion's wells while a third well is being drilled at a location in the company's Golden Lane Field. Using a single pad to drill multiple wells helps New Dominion hold down its development costs.



New Dominion's continued success rests upon six pillars of equally-matched strength: A proper geologic assessment of reservoirs developed by reviewing historical data from other producing wells; a well-trained, knowledgeable technical team to maintain efficient production; a strategic placement of wells to maximize their collective effectiveness in lowering reservoir pressures; a prebuilt, economical saltwater transportation and disposal system; an existing, economic and abundant source of high-current, three-phase electrical power; and, a prebuilt gas gathering and processing system capable of handling high volumes of liquids-rich natural gas. The company intends to continue focusing on conventional oil and liquids-rich resource plays. Through new strategic partnerships formed in 2011, New Dominion plans to accelerate its development of existing inventory and actively pursue new acquisitions without compromising its economic operating structure. Simply put, the dynamic production technique that New Dominion uses effectively produces substantial amounts of oil, condensate, and liquids-rich natural gas from fields explored by earlier oil and gas companies that used conventional drilling and recovery methodologies of their day. "I can demonstrate this time after time—take all the oil and natural gas that has been produced from sweet spots such as anticlinal structures and pinch outs using conventional thinking and production methods. We can go

in there, and usually end up producing a minimum of ten, if not fifteen times more," notes Chernicky. The company looks to develop large fields, covering as much as two thousand square miles or more. "The process is the same, but developing these larger areas provides a much better economy-of-scale that provides a substantial return for industry partners." New Dominion's production techniques are environmentally responsible and bring tangible benefits to the landowners and communities where the company operates. At many drilling and production locations, the company drills fresh water wells and makes water available to rural communities and to ranchers needing to fill their ponds. Additionally, the company's need for high-current, abundant power to operate its pumps often results in a substantial increase of existing electrical distribution systems at New Dominion's expense, and that boosts the reliability of power to nearby businesses and residents.

New Dominion and its employees are actively involved in a wide number of charitable causes by donating their time and money to various foundations and organizations, including child crisis centers, schools and other programs. New Dominion was recognized in 2007 by Oklahoma's Department of Human Services as one of the state agency's top volunteers. After an outbreak of wildfires in Seminole County during 2006, New Dominion donated a total of \$20,000 to three



David J. Chernicky, founder and owner of New Dominion, poses with employees and volunteers who worked to put on the company's New Dominion Dayz event in Prague in 2011. Chernicky created the event as a way to give back to the community for its support as his company has grown its operations there for the past decade.





rural fire departments and to a fire relief fund set up to help families who lost their homes. In 2005, New Dominion contributed about \$933,000 to city of Prague to help the community replenish its water supply. As part of that donation, New Dominion drilled two new water wells, built a water distribution line, and deeded four hundred acres of water rights to the city. At the time, city officials estimated the two new wells would meet the community's future water needs indefinitely. In 2008, New Dominion donated \$75,000 toward building a new gymnasium for Paden Public Schools after the district's existing gymnasium collapsed during an ice storm the previous year. In 2005, New Dominion, Chernicky, and an investor in the company contributed \$25,000 each toward building a new public library in Prague. Work on the project started the same year, and today, the library is a vital part of the community.

New Dominion's annual "New Dominion Dayz" is an event that was created to support the Prague community and its students. Traditionally held on the Friday before the community's annual Kolache Festival, the

event is hosted by New Dominion employees to raise scholarship money for college-bound seniors of Prague High School. The company and area businesses sell "chance to win" tickets for prizes that are given away at the event. Prizes in 2011 included a riding mower and a new car. New Dominion matches the total dollar amount of ticket sales. The combined funds are subsequently awarded as scholarships to some of the graduating seniors. Since the first New Dominion Dayz in 2004, more than one hundred graduates have received a New Dominion Dayz scholarship. New Dominion relies upon partnering oil and gas service companies to help financially support the project. To Chernicky, New Dominion Dayz demonstrates a successful collaboration between his company and its partners and unites them together with the community. "Prague continues to be one of our most significant areas of business development, and the community's support throughout the years as we have grown our business here has been just stellar," Chernicky says. "This event is one way among many that we try to give back to the community."



A contractor works to install a saltwater disposal line to a location where a well was being drilled by New Dominion in 2011.

The company makes sure its infrastructure needs will be met before wells are drilled.

KIRKPATRICK OIL COMPANY, INC.

John Kirkpatrick was devoted to Oklahoma. Throughout his prominent career as a leader in business and civic roles across the state, he and his wife Eleanor focused their energies and resources into the communities where they lived and worked. Their legacy remains today among the many endeavors that bear the Kirkpatrick name. Among them is the historic, family-owned Kirkpatrick Oil Company.



Top, left: Working onsite at one of Kirkpatrick's early wells in the 1950s.

Top, right: John Kirkpatrick's brother, Elmer E. Kirkpatrick, at a well site in July 1951.



The Kirkpatrick family first came to Oklahoma in 1893 with Dr. E. E. Kirkpatrick opening his dental practice in Oklahoma City the following year. John Elson Kirkpatrick was born later, in 1908, the third son of Claudia Spencer Kirkpatrick and her husband, and grew up in the city amongst a close-knit family. In the definitive biography, *John & Eleanor: A Sense of Community*, by Oklahoma journalist Max J. Nichols, John recalled the time as a defining period that would remain profoundly significant throughout his life, "My parents didn't give us things. They gave us responsibilities. We learned to be frugal, helpful and productive." Growing up with grandparents who reinforced these values helped guide John to the U.S. Naval Academy in 1925.

While at Annapolis, John met Eleanor Blake, whose father, Mack Barkley Blake, was a powerful leader in the banking and business industry in early twentieth century Oklahoma. The Blakes had opened a thriving wholesale dry goods company in the city in 1910. As the business grew, Mack pursued several successful ventures and served as a cofounder of Liberty National Bank in 1918 before he began purchasing oil and gas royalties in Gray County, Texas, and Reno County, Kansas, around 1920.

John and Eleanor began dating in the summer of 1929, when John had returned from his third year at the U.S. Naval Academy and Eleanor was about to enter her first year at Smith College. The couple married in June 1932. While serving in the Navy, John moved through the ranks aboard the USS *Cincinnati*, USS *California*, and USS *Arizona*. In 1935, Lieutenant John Kirkpatrick resigned from the Navy. He and Eleanor moved with their daughter Joan to Oklahoma City in 1936 after John completed a year of coursework at the Harvard University School of Business.

It was during this move home that John first entered the oil business. He took a seventy-six dollar a month job in the thriving oil fields of the area and later worked in an oil field machine shop in southeast Oklahoma City. With two other men, John soon opened Allied Steel Productions Corporation of Tulsa, a steel fabrication shop. Mack Blake financed the business, which heralded "the beginning of a new career, and it would provide invaluable preparation for John's eventual entry into the oil business ten years later to build his remarkable fortune."

Within eight months, Allied Steel had grown to 40 employees and sold nearly 200 steel buildings to customers in 5 states. John and his partners expanded their product line to include pump houses, refinery buildings, power houses, gasoline plants, warehouses, and structures designed for specific purposes. John also drew on his engineering education at the Naval Academy to help with the design of products. These included a gas engine cooler that became a standard part of the firm's inventory.

In 1941, World War II was just beginning when John was recalled to active duty in the Navy. John saw action across the Pacific while serving aboard the USS *North Carolina* and later the USS *Alaska*. Throughout his time, he kept in touch with his family, including Mack, who mentioned several financial prospects including one with a petroleum engineer named Hubert Bale. Deciding against other prospects in Tulsa, the family was delighted when John decided to work with Bale and learn the oil business in 1945. In addition, Mack, who suffered from a heart condition,

wanted John to oversee his estate and manage a variety of investments for their family.

Kirkpatrick and Bale occupied offices in the APCO Tower in downtown Oklahoma City, and while Bale managed the office, John began to learn more about oil field work. He was surprised to find that he enjoyed the engineering and mechanical challenges associated with drilling for oil. Describing the period, biographer Max Nichols wrote, “[John] soon found that independent oil men often made deals on a handshake, and that was consistent with the integrity that John’s family had instilled in him since birth.”

When the partners drilled four offset wells on a 160 acre farm in the Texas panhandle owned by Mack early in 1946, they found oil in all four and soon expanded to twelve successful wells.



After the first four wells, Kirkpatrick and Bale moved their rig to Carter County in south central Oklahoma and began drilling their own leases. The first well was a dry hole, but the second—the Epley A-1—proved to be an extraordinarily good well and provided the foundation for the Kirkpatrick fortune.



Above: Christian Keesee and his grandfather John Kirkpatrick visiting a site in 1968.

Left: John Kirkpatrick in his office at 1300 North Broadway in Oklahoma City.

Below: Kirkpatrick Oil Company Chairman Christian Keesee.





Above: Left to right, Christian Keesee, Joan, Eleanor and John E. Kirkpatrick on the site of the Mollie Spencer Well in Canadian County in 1979.

Below: Christian Keesee's son, Blake Keesee, visits the company's new offices in Hennessey.

Opposite, top: Kirkpatrick Oil Company's field office in Hennessey, 2011.

Opposite, bottom: A Ribbon-cutting ceremony was held in celebration of the opening of the company's district headquarters in downtown Hennessey on July 29, 2011.

On May 5, 1950, Bale and John agreed to split the business. John became the company's new president and Eleanor served as vice president and secretary while their daughter Joan served as a director. On May 25, 1950, the name was officially changed to Kirkpatrick Oil Company with assets of \$141,000.

The company's first successful well was the Scott, which produced two hundred barrels a day. The Tatums Pool in Carter County also flourished in the fall of 1951 and John moved rigs into the Katie and Southeast Pools in Garvin County and the Velma Pool in Stephens County in 1952. John soon realized the need to diversify his interests in the industry and developed such businesses as Kirkpatrick Well Servicing Company, Kirkpatrick Pipeline Company, Kirkpatrick Supply Company and Kirkpatrick Trucking Company.

The company turned over a new leaf in 1957 when Kirkpatrick Oil sold a large portion

of its oil and gas production to Tennessee Gas Transmission for \$1.5 million. The sale resulted in "a new Kirkpatrick Oil Company that was debt free and staffed with people who knew where to find and how to produce oil and gas." By 1959 the company was drilling major producing wells in Garvin, Hughes, Seminole and Grant Counties.

Because of John's uncanny ability to draw some of the most dedicated and intelligent men and women in the oil industry to his companies and delegate his increasingly vast authority and workload, the Kirkpatrick's legacy was not relegated merely to the world of business. With Kirkpatrick Oil firmly established by the mid-1950s, John and Eleanor soon became the driving force in forming a philanthropic legacy that remains in the twenty-first century.

In 1955 they created the Kirkpatrick Foundation, a private foundation focusing on arts, culture, and civic projects. In 1969, John joined eight businessmen in forming The Oklahoma City Community Foundation, which has funded more than 200 other nonprofit organizations and manages more than 1,000 endowments today.

The Kirkpatrick Center opened in 1976 with the debut of one of the state's most well-known and longest-running attractions, the Oklahoma Science Museum. It is Oklahoma's largest science museum and includes a large planetarium with expansive areas for science, arts and space programming. A host of other equally important contributions made by the family throughout the years have included the Kirkpatrick Fine Arts Building at Oklahoma City University, Oklahoma City Zoological Society, Lyric Theatre, National Cowboy and Western Heritage Museum, and the John E. Kirkpatrick Horticulture Center at Oklahoma State University.

In 1989 the Kirkpatrick Family Fund was established as an affiliated fund that focuses on grants for central Oklahoma charities. It has become the largest affiliated fund in the Oklahoma City Community Foundation. Between 1989 and 2010, the Kirkpatrick Family Fund contributed nearly \$50 million in grants and endowment support to charitable organizations.





Today, the Kirkpatrick family of companies and organizations include Kirkpatrick Bank, the Kirkpatrick Family Fund, the Kirkpatrick Foundation, Kirkpatrick Oil and El Dorado Drilling Company.

In April 1993, Kirkpatrick Oil Company was set on a new and exciting trajectory as John's grandson, Christian Keesee, began to express interest in leading the company into the future, while his grandfather was still able to help. By this time, Chris had established himself as a successful banker in the area and was now searching for a new challenge.

At the same time, Kirkpatrick Oil Company had decreased its oil and gas activities and was maintaining its existing production leases

from previous wells drilled and investing mainly in deals operated by other companies.

By August, John had decided to turn the operation of Kirkpatrick Oil Company, among the country's most significant oil and gas exploration and production companies, over to Chris.

Keesee purchased Kirkpatrick Oil Company in 1995. With just sixteen employees and a production stream in steady decline, Chris brought a clear vision to his grandfather's venerable company and was patient in his approach as he set out to reestablish it as a true exploration and production company.

Today, Kirkpatrick Oil has forty-three employees and has seen a steady increase in production every year since its purchase by Chris. It continues to profitably find, develop, produce and sell oil and gas in the Mid-Continent region while exploring growth opportunities there and in other focused areas.

The company is headquartered in Oklahoma City, with district offices in Denver, Colorado, and Midland, Texas. In July 2011, a new award-winning field office was opened in downtown Hennessey at 106 South Main Street. The ninety-four-hundredsquare-foot office fills the space of three downtown storefronts, which had been vacant since an October 2007 fire. Kirkpatrick Oil has operated from offices located on U.S. 81 south of Hennessey since 1967.

Keesee believes in the importance of investing in communities that have been "so good to Kirkpatrick Oil Company and the Kirkpatrick family for so long...the new building is just a small token of our appreciation for how good the citizens of Hennessey have been to us."

Kirkpatrick Oil's historic focus remained in the Oklahoma Mid-Continent region with several sites in the Texas Permian Basin. Today, that vision has enlarged to multiple other states including the Gulf Coast regions of Texas and Louisiana with further focus upon the West Texas Permian Basin, Colorado and other Rocky Mountain states.

Kirkpatrick Oil Company is headquartered at 1001 West Wilshire in Oklahoma City and can be found online at www.kirkpatrickoil.com.



Left to right, Oklahoma House of Representative Mike Sanders presented Kirkpatrick Oil Company President Mike Steele and Chairman Christian Keesee with an award for the new district headquarters in Hennessey, July 29, 2011.





Left: The headquarters of Kirkpatrick Oil Company in Oklahoma City, 2011.

Below: The staff of Kirkpatrick Oil Company, Kirkpatrick Family Fund and Kirkpatrick Foundation in July, 2011.



CHESAPEAKE ENERGY CORPORATION



Above: Chesapeake co-founder and CEO, Aubrey K. McClendon.

Below: Chesapeake's unique Reservoir Technology Center enables scientists to analyze wellbore samples faster and more accurately than commercial core labs.



Chesapeake Energy Corporation (NYSE:CHK) is the second-largest producer of natural gas, a Top 15 producer of oil and natural gas liquids and the most active driller of new wells in the U.S. The company holds leading positions in the Barnett, Haynesville, Bossier and Marcellus natural gas shale plays and in the Granite Wash, Cleveland, Tonkawa, Mississippi Lime, Bone Spring, Avalon, Wolfcamp, Wolfberry, Eagle Ford, Niobrara and Utica unconventional liquids-rich plays. Chesapeake also owns substantial midstream, compression, drilling and oilfield service assets.

The company believes the potential of even the best assets cannot be fully realized without great people to plan and execute their development. Chesapeake's success was built around the core values of hard work, community, teamwork and innovation in the discovery and development of unconventional natural gas and oil fields. Around those values, the company has created a distinctive corporate culture that cultivates excellence and promotes personal initiative while offering its employees attractive rewards and an atmosphere of personal accomplishment and camaraderie.

Since its founding in 1989, Chesapeake has grown from 10 employees to a workforce of more than 13,000, of whom 5,000 work at its Oklahoma City corporate headquarters.

The company was formed on May 18, 1989, by Aubrey K. McClendon and Tom L. Ward, who collectively invested \$50,000. Six weeks later, Aubrey, Tom and their families met for a picnic on the grounds of the historic Lindsay-Murray Mansion near Lindsay, Oklahoma, to celebrate the spudding of their first two wells, the Newby 1-1 (Section 1-4N-5W, Grady County) and the Jones 1-16 (Section 16-4N-4W, Garvin County), on nearby wheat farms. The name chosen for the company was Chesapeake Operating, Inc. (COI), reflecting Aubrey's long-standing interest in the geography, history and culture of the Chesapeake Bay area, which he visited several times as

a teenager and while a student at Duke University. Chesapeake Energy Corporation was formed to become the parent company of COI in preparation for the company's initial public offering (IPO) in 1993.

Aubrey and Tom, born within three days of each other in July 1959 (Tom being the elder), brought complementary skills to their fledgling enterprise. Aubrey, raised in Oklahoma City, was the financial whiz kid and lead dealmaker who also had the natural ability to talk to experienced businessmen twice his age and convince them to invest in Chesapeake. Tom, born in the small northwestern Oklahoma town of Seiling, was an accomplished landman himself, but refocused his skills towards developing a keen talent for building teams that could find, drill and produce oil and gas despite the company not being properly capitalized in the early days.

On February 4, 1993, Chesapeake completed an initial public offering and was listed on the Nasdaq Stock Exchange in what was the least successful IPO of the year, down 70 percent in 1993 from a split-adjusted IPO price of \$1.33 to just 44 cents per share. Investors were not quite sure what to make of this small corporation, run by the thirty-three year-olds with the controversial and untested business strategy of looking for what are now called unconventional reservoirs.

Undeterred, the company used the latest horizontal drilling and hydraulic fracturing technologies to create its first big break, the discovery of the prolific Austin Chalk formation in the Giddings Field in Texas. The Austin Chalk became the fastest growing gas-producing field in the nation, and on the back of its success Chesapeake became the best stock in America from 1994-1996, increasing in value almost eighty-fold to over \$2 billion. In April 1995 the company moved its stock listing from NASDAQ to the NYSE.

Flush with success, the company aggressively expanded its acquisition of Austin Chalk mineral rights into Louisiana during 1995-1996, where the team discovered to its dismay in 1997-1999 that the Chalk grew tighter and less productive as the wells moved east and south. The stock tanked by over ninety percent.

The company's leadership team fought on, focusing exclusively on finding natural gas and supplementing growth through the drillbit with growth through acquisitions. During the next five years, Chesapeake invested almost \$6 billion in acquisitions that increased the company's proven reserves from 0.5 trillion to 7.5 trillion cubic feet of natural gas equivalent reserves. Among those natural gas-focused acquisitions were the \$2.2-billion purchase of Columbia Natural Resources, LLC in Charleston, West Virginia, with extensive holdings in West Virginia, Kentucky, Pennsylvania, and New York; a series of transactions focused on building a significant position in the Anadarko Basin of western Oklahoma; and the acquisition of a small stake at the southern end of a new type of play developing around Fort Worth, Texas—America's first great modern shale play, the mighty Barnett.

By 2005, and ahead of most competitors, Chesapeake's leadership team began to realize the potential of America's shale assets and completely revamped the company's strategy to focus around recognizing that the U.S. was likely to lead the world in natural gas production growth for decades to come. Further change came to the company in February 2006 with Tom's decision to resign to focus on other interests, which later led to his investment in what became SandRidge Energy, Inc.

Following quickly on the heels of the company's success in the Barnett, Chesapeake built strong positions in the Fayetteville Shale in Arkansas and the Marcellus Shale in West Virginia, Pennsylvania, and New York; and discovered the massive Haynesville Shale in Louisiana and East Texas, which in conjunction with the overlying Bossier Shale, has become America's largest gas-producing field. By 2009, Chesapeake had become the largest U.S. natural gas producer.



Above: The company's 120-acre corporate campus features state-of-the-art technology in a collegiate atmosphere.

Below: Operating twenty-four hours a day, a Chesapeake rig drills for natural gas near Towanda, Pennsylvania.





Above: Each week, hundreds of Chesapeake volunteer mentors serve as tutors and role models for students at four Oklahoma City area schools.

Below: Chesapeake employees give thousands of hours each year to serve communities throughout the company's operating areas.



In 2008, Aubrey recognized that the U.S. was likely to be awash in natural gas during the years to come, and that the same techniques used to unlock America's vast treasures of shale gas could also be used to develop vast new treasures of unconventional oil and natural gas liquids, which would likely be far more valuable to discover and produce than natural gas.

These realizations led the company to another shift in its business strategy, and Chesapeake invested \$8 billion in oil-focused growth opportunities in the Anadarko Basin,

the Utica Shale (discovered by the company in 2011), the Eagle Ford and Niobrara shales and the Permian Basin. By year-end 2011, natural gas prices had fallen eighty percent from 2008 levels, oil prices had reached \$100 per barrel and Chesapeake's liquids production had increased from 30,000 barrels per day in 2008 to more than 100,000 barrels per day.

While Chesapeake believes that today's natural gas supply revolution will be followed in the next few years by an equally significant natural gas demand revolution, for now, it is all about oil at Chesapeake. By year-end 2015, the company expects its liquids production to reach 250,000 barrels per day, likely to be the industry's best track record of oil production growth from 2008-2015.

Whether drilling or producing, Chesapeake is highly aware of the importance of conducting all its operations in an environmentally responsible manner. In 2011 the company made public its Commitment to Environmental Excellence, expressing core values to minimize the environmental footprint of its operations and following up with focused programs and policies to support those values. Chesapeake's *Aqua Renew*[®] and *Green Frac*[®] programs are industry-leading efforts to improve the hydraulic fracturing process by recycling produced water and limiting or eliminating additives.

The company has been an outspoken advocate for promoting natural gas and its many advantages as a clean, domestic, abundant American fuel. In 2007 the company founded the American Clean Skies Foundation and two years later was the driving force behind the founding of America's Natural Gas Alliance.

In 2011, Chesapeake announced it would invest more than \$1 billion during the next ten years in a plan to reduce the nation's decades-long addiction to foreign oil by increasing production of domestic oil, helping to build a coast-to-coast infrastructure of natural gas fueling stations, and funding advanced gas-to-liquid technologies to convert natural gas into a tank-ready transportation liquid.

Company officials have attributed Chesapeake's success in the field and its

industry leadership to a talented and highly motivated workforce. Their efforts are enhanced by cutting edge facilities, such as Chesapeake's Reservoir Technology Center, the industry's most extensive core sample laboratory, and its 3-D Seismic Visualization Room where scientists can evaluate geologic formations beneath the company's unparalleled inventory of 15 million net acres of U.S. onshore leasehold.

In 2012, Chesapeake was named one of the *FORTUNE 100 Best Companies to Work For*® in the U.S. for the fifth straight year, ranking #18 overall, #5 among companies with more than 10,000 employees and #1 in Oklahoma and the E&P industry.

To accommodate its fast-growing corporate family, the Chesapeake has built an urban oasis on the near-north side of Oklahoma City. From its original home in one Colonial-style building acquired by Aubrey in 1988 in the Three Chopt Square office development, the Chesapeake corporate headquarters has expanded to include more than 120 acres of buildings in a park-like, collegiate setting. Led by Rand Elliott of Elliott + Associates Architects and working in close coordination with Aubrey, architectural design teams have created dozens of award-winning structures and interiors.

Simply known as "the Campus," Chesapeake's complex includes amenities such as a seventy-two-thousand-square-foot fitness center, four restaurants, soccer field, a state-of-the-art child care facility, first-rate meeting facilities, and an employee healthcare center.

Chesapeake's willingness to invest in a quality work place has been matched by its generosity to communities throughout its operating areas. The company, in partnership with its employees, has built an unprecedented reputation for philanthropy and community service. In 2011, Chesapeake contributed more than \$30 million and its employees donated almost 42,000 volunteer hours to organizations and projects centering on community development, social services, health and education.



Above: Chesapeake's corporate headquarters provides an urban oasis in Oklahoma City.

The company's drive to find ever-increasing quantities of oil and natural gas to supply America's energy needs is undiminished after more than twenty years of unprecedented growth. Chesapeake continues to raise the industry's standards of operation, advocacy, philanthropy and community service, while aggressively shifting its focus to more profitable liquids plays and expanding its oilfield service subsidiaries for greater economy and scale. Thanks to this relentless focus on groundbreaking innovation and growth, Chesapeake controls the industry's biggest and best U.S. resource base—promising even greater shareholder value growth for decades to come.

Below: Geoscientists in the company's 3-D Visualization Room wear special glasses to study formations lying miles beneath the Earth's surface.



BREITLING OIL AND GAS



Left: Chief Executive Officer Chris Faulkner.

Right: Chief Operating Officer Parker Hallam.



Among the largest independent, non-integrated oil and natural gas companies in the United States, Breitling Oil and Gas is based in Irving, Texas, and was founded upon the fundamental principles of applying state-of-the-art petroleum and natural gas exploration and extraction technology to the development of onshore oil and natural gas projects. With proved reserves throughout most major basins in North America, the company's focus areas include Texas, Oklahoma and Louisiana with operations in most major plays in the United States including the Haynesville, Eagle Ford, Woodford, Fayetteville, Niobrara, and the Bakken.

The company was formed in Oklahoma City on October 15, 2004, as the culmination of a ten year process that first began when its founders, Chris Faulkner, Parker Hallam, and Michael Miller, met to work on the creation of a new 3D seismic filtration process that was later patented under the name Geo3D.

Historically, 3D seismic surveys and earlier 3D surveys in particular often contained information beyond visual resolution and hidden from the interpreter. However, signal processing on the workstation using what might be termed "geological based seismic deconvolution" has the potential to enhance the resolution to the point that this hidden information can be made visible and incorporated into the interpretation. Breitling's patent-pending Geo3D Seismic

Filtering technology takes existing 3D seismic data and enhances it so it is noise free and with a broad enough "zero phase" spectrum to represent fractional match points that could lead to oil and gas discovery. Within the limitations of the seismic data, they can use this synthetic data to optimize their 3D data set and locate oil and gas reservoirs that were missing in previous low resolution interpretation.

Today, the expansive focus of its leadership has allowed Breitling to offer significant oil and gas investment opportunities through direct participation programs and oil and gas direct participation working interest which enable investors to participate in the potential cash flow and unique tax benefits associated with oil and gas investments. Especially important in a downturned economy, oil and gas investments allow savvy investors to diversify and reinforce their investment portfolios with a stable commodity that is in steady demand.

Breitling's exploration activities are focused on adding profit generating production to existing core areas and developing potential new core areas. Breitling's production operations supply liquid hydrocarbons and natural gas to the growing world energy markets. Worldwide production operations are currently focused in North America. The company also holds ownership interests in both operated and outside-operated leases in Canada, Europe and the Middle East.



In the worldwide marketplace Breitling operates joint ventures in Poland and in China, partnerships that have been in place since the company's inception. Founder and CEO Faulkner explains, "We have geophysicists and geologists in-house with a wealth of expertise that allows us to pinpoint possible sites. Added to that here in the United States we have access to an enormous amount of historical data, which is readily available to us and so we have been able to stay ahead of the game." An example of this is a new plate in Kansas, referred to as the 'three fingered shale'.

Breitling Oil and Gas' primary goal is to increase the value of acquired properties through a combination of exploitation, drilling and proven engineering extraction practices, with its most significant emphasis on CO2 tertiary recovery operations.

Breitling's production operations also supply liquid hydrocarbons and natural gas to the growing world energy markets. Faulkner continues, "Our main area of operations is to go back into mature fields and apply new technology to re-establish production by using hydraulic fracturing and horizontal drilling techniques. Breitling offers oil and gas investment opportunities through direct participation programs and oil and gas direct participation working interest, which enable investors to participate in the potential cash flow and unique tax benefits associated with

oil and gas investments. Especially important in a downturned economy, oil and gas investments allow savvy investors to diversify and reinforce their investment portfolios with a stable commodity that is in steady demand."

Among the company's most advanced techniques is hydraulic fracturing, which allows for optimized recovery of oil and gas reserves. The process involves millions of gallons of water, sand and chemicals being pumped underground to depths of as much as ten thousand feet. The enormous pressure that is built up causes the rock to fracture and break apart, thereby releasing the otherwise unreachable reserves. Faulkner says: "The potential for access to unconventional reserves is the best opportunity for these techniques. But we are faced with concerns that need to be addressed. In the short term public perception is our biggest challenge, concerns not only about the possible danger from the chemicals used in the process, but also because of the huge volumes of water needed. In today's world these are big concerns for people and we are acutely aware that such concerns could lead to an increase in red tape and regulation. So in the medium term we need to advance the technologies so that we can, for example, lower water requirements."



Above: Chief Investment Officer
Michael Miller.





As they prepare to celebrate a decade of growth and success in the ever-changing field of independent energy, Breitling's mission has remain unchanged as they focus upon making the world a better place to live by providing safe and reliable energy for generations to come, and have fun doing it. Their reputation continues to flourish as a respected independent energy company of the future relentlessly pursuing targeted investments, maximizing the value of its assets and resources for employees, shareholders and stakeholders, and always working in a responsible, caring and productive manner.

Breitling's ability to increase in an era of uncertainty is unquestionably tied to its core values, which the company offers in a straightforward and forward-thinking style. They include being fair and honest—treating others like we would like to be treated; planning wisely—playing to our strengths and striving to do our jobs better every day by being safe, responsible, persistent, creative, goal-oriented, well-trained, agile, prudent, accurate, and timely in the work that we do; aligning interests—creating and working toward common goals with our employees, business partners, contractors, consultants, and regulators; helping others—helping build a better community; being good stewards—conserving energy and protecting the environment; and enjoying life—having fun doing our jobs well, celebrating our accomplishments, exceeding our goals, laughing often, and working in a quality environment with competent peers.



In terms of future opportunities, Faulkner points to natural gas, currently not drilled because it is too cheap and therefore uneconomical. He explains, "In the United States we have a natural gas glut, so drilling for more makes no economic sense. In 2005 the U.S. Energy Information Administration (EIA) predicted that we would need to import 1,000 BCF of natural gas to meet demand; however, within four years that figure went down to zero. Having built terminals to import LNG we now find that we have no need of them and one plan is to convert these to export terminals so that we can send our excess to Asia and Europe. Another option is to look at personal transport and the potential for natural gas vehicles. Natural gas is clean fuel efficient and economical." Indeed there are about 110,000 natural gas vehicles (NGVs) being used in the United States and more than thirteen million worldwide. The United States has around a thousand gas stations that offer NGV fuelling stations and many more could be converted. "The third option," says Faulkner "is to convert away from coal powered power generation, something which is already happening."

The key to Breitling's success and continued growth is built around a core set of principles by which the company operates. These are to acquire oil and gas properties that give

them a majority working interest and operational control or where they believe they can ultimately obtain it; to maximize the value of properties by increasing production and reserves while controlling cost; to maintain a highly competitive team of experienced and incentivized personnel and engineers; to remain focused in specific regions where they have a competitive advantage as a result of their ever-expanding infrastructure, or where they believe they can ultimately obtain it; to acquire properties where they believe additional value can be created through secondary and tertiary recovery operations and a combination of other exploitation, development, exploration and marketing techniques. Faulkner is an industry expert, a keynote speaker at many of the most important industry conferences and was recently honored to receive for his company the award for 2011 Best Independent Oil and Gas Company, North America, from *World Finance Magazine*.

The company's ability to deliver a competitive and sustainable rate of return to oil and gas investors by developing, acquiring and exploring for oil and gas resources vital to the world's health and welfare remains strong in the twenty-first century.

Breitling Oil and Gas can be found online at www.breitlingoilandgas.com.

LAREDO PETROLEUM HOLDINGS, INC.



Above: Randy Foutch, chairman and CEO.

Below: Ringing the bell at the NYSE.

PHOTOGRAPH COURTESY OF BEN HIDER/NYSE EURONEXT.

Laredo Petroleum Holdings, Inc. (NYSE: LPI) is a publicly traded energy company focused on the exploration, development and acquisition of oil and natural gas properties in the Permian and Mid-Continent regions of the United States. Included under the Laredo Petroleum umbrella are Laredo Petroleum, Inc., Laredo Petroleum–Dallas, Inc., Laredo Gas Services, LLC, and Laredo Petroleum Texas, LLC. The company is headquartered in Tulsa, Oklahoma.

Laredo Petroleum Holdings, Inc. completed its initial public offering on December 20, 2011. The initial public offering consisted of 20,125,000 shares of common stock at \$17 per share, including all 2,625,000 shares of common stock subject to the underwriters' option to purchase additional shares.

Laredo was founded in October 2006 by Randy A. Foutch, who was later joined by other members of the management team, many of whom have worked together for a decade or more. Foutch serves as chairman and chief executive officer of Laredo.

Prior to founding Laredo, Foutch organized, built and sold three private oil and gas companies, all of which were focused on the same general areas of the Permian Basin and Mid-Continent in which Laredo currently operates. All of these companies executed the same fundamental business strategy that created significant growth in cash flow, production and reserves. These companies had a total of approximately \$547 million in debt and equity capital invested, and cumulative sales proceeds were approximately \$1.1 billion.

Laredo's management team, in addition to Foutch, includes: President and Chief Operating Officer Jerry R. Schuyler; Senior Vice President and Chief Financial Officer W. Mark Womble; Senior Vice President–Exploration





and Land Patrick J. Curth; Senior Vice President—Reservoir Engineering John E. Minton; Senior Vice President—Permian Rodney S. Myers; Senior Vice President and General Counsel Kenneth E. Dornblaser; Vice President—Marketing Dan C. Schooley; Vice President—Operations Dave M. Boncaldo; Vice President—Exploration Jeffrey A. Tanner; Vice President—Land Mark W. King; Vice President—Exploration & Land—Permian Mark H. Elliott; and Vice President—Operations and Engineering—Permian A. John Whitehead.

Laredo's activities are focused primarily in the Wolfberry and deeper horizons of the Permian Basin in West Texas, and the Anadarko Granite Wash in the Texas Panhandle and Western Oklahoma. The company has assembled about 135,000 and 37,700 net acres respectively. Both plays are characterized by high oil and liquids-rich natural gas content, multiple target horizons, extensive production histories, long-lived reserves, high-drilling success rates and significant initial production rates.

In July 2011, Laredo completed the acquisition of Broad Oak Energy, Inc., for a combination of equity and cash. The contiguous acquired properties are concentrated in the Permian Basin, primarily in Reagan County, and are being drilled targeting Wolfberry production. This acreage, which totals about sixty-four thousand net acres, approximately doubled Laredo's Permian Basin position.

Based on its 2012 capital budget, Laredo expects to produce approximately 10.6 million barrels of oil equivalents in 2012, including approximately 41 percent crude oil and 59 percent liquids-rich natural gas. Anticipated production growth of 25 percent is driven primarily by Laredo's Permian Basin operations.

The Permian Basin, located in west Texas and southeastern New Mexico, is one of the most prolific onshore oil and natural gas producing regions in the United States. It is characterized by an extensive production history, mature infrastructure, long reserve life and hydrocarbon potential in multiple intervals. Laredo's Permian activities are centered



Laredo employees at the NYSE.

PHOTOGRAPH COURTESY OF BEN HIDER/NYSE EURONEXT.



Above: Laredo production site in Hemphill County, Texas.

Below: Laredo field compressed natural gas (CNG) vehicle.



on the eastern side of the basin, about thirty-five miles east of Midland, Texas, in Glasscock, Howard, Reagan, and Sterling Counties.

The overall Wolfberry interval—the principal focus of Laredo's drilling activities—is an oil play that also includes a liquids-rich natural gas component. The company's production/exploration fairway extends approximately 20 miles wide and 80 miles long. While exploration and drilling efforts in the southern half of the acreage block have been centered on the shallower portion of the Wolfberry, the emphasis in the northern half has been on the deeper intervals, including

the Wolfcamp, Cline Shale, Strawn, and Atoka formations. Considering the geology and reservoir extent of each contributing formation, Laredo now has identified significant potential throughout the total acreage block for the entire Wolfberry interval from the shallow zones to the deepest.

Laredo has drilled and completed more than six hundred gross vertical wells and has defined the productive limits on its acreage throughout the trend. Laredo believes that the success of the vertical drilling program, coupled with industry activity, has substantially reduced risks associated with future drilling programs in the Wolfberry interval.

Laredo has expanded its drilling program to include a horizontal component targeting the Cline and Wolfcamp Shales. The drilling of the Cline Shale, located in the lower Wolfberry, was initiated after an extensive technical review that included coring and testing the geophysical properties of the formation. Laredo believes the Cline Shale exhibits similar petro-physical attributes and favorable economics compared to other liquids-rich shale plays such as the Eagle Ford and Bakken Shale formations operated by other companies. Laredo has acquired 3D seismic data to assist in fracture analysis and help define the structural component within the Cline Shale.

Laredo's Granite Wash play, which straddles 37,700 net acres along the Texas/Oklahoma state line, extends over a large area in the western part of the Anadarko Basin. Laredo's play consists of vertical and horizontal drilling opportunities targeting the liquids-rich Granite Wash formation. By utilizing data obtained early in the exploration process through whole core samples, enhanced logging techniques and from other wells drilled by the industry, Laredo has developed a geological, depositional and engineering understanding. As a result, Laredo has been able to target its current vertical development drilling program in the higher productive areas.

Laredo's horizontal Granite Wash program is in the evaluation phase with a current emphasis on reducing risks through its drilling program and by incorporating practices similar to the industry's successful drilling results in the immediate area. The economic viability of the Anadarko Granite Wash horizontal program has been validated by Laredo's recent completions and by the announced success of competitors in close proximity to Laredo's acreage. In addition to the Granite Wash zones tested to date, Laredo believes that additional upside exists within the multiple mapped and targeted horizontal Granite Wash zones that remain to be tested. As a result of recent horizontal success, Laredo anticipates the majority of its Granite Wash drilling going forward to be horizontal.

In addition to the Permian Wolfberry and Anadarko Granite Wash plays, Laredo continues to evaluate opportunities in other areas within its core operating regions. An example is the Dalhart Basin is located on the western side of the Texas Panhandle. It is characterized by both a conventional Granite Wash play and several potential liquids-rich shale plays that may underlie a significant portion of the entire area.

Looking to the future, Laredo's business plan includes growing production and reserves through lower-risk vertical drilling; increasing recovery and capital efficiency through horizontal drilling; applying the firm's technical expertise to reduce risk in its current asset portfolio, optimize its

development program and evaluate emerging opportunities, enhance returns through prudent capital allocation and continued improvements in operational and cost efficiencies, evaluation and pursuit of value enhancing acquisitions, mergers and joint ventures, and proactively managing risk to limit the downside.



In addition to its headquarters at 15 West Sixth Street in Tulsa, Laredo Petroleum Holdings operates regional offices in Dallas and Midland, Texas; with field offices in Spearman, Texas, and Elk City, Oklahoma.

For more information about Laredo Petroleum Holdings, please visit www.laredopetro.com.



Flags on a Laredo operated rig in Texas.

CARL AND HENRY GUNGOLL



Right: Carl E. Gungoll.

Below: Henry H. Gungoll with his
son, Robert.



The Gungoll family has been involved in the Oklahoma oil and gas industry since its early days, and the legacy they established continues today.

Carl E. and Henry H. Gungoll were born in Old Woollam, Missouri, the sixth and seventh of the eleven children born to Otto Carl Gungoll and his wife, Katie. Carl was six and Henry only four years old when the family boarded a Rock Island train at Bland, Missouri, and came to Waukomis, Oklahoma, in April 1909.

The parents purchased a quarter section of land five miles west of Bison, Oklahoma, where the family lived, farmed, gardened and raised cattle. The Prairie homestead was close to Turkey Creek where the boys trapped furs to help with the family finances.

As a young man, Carl watched as his father sold the oil and gas lease on their home farm to an Enid banker for \$40. Carl pondered the deal and thought it was something he could do as well for himself, so he approached the nearest neighbor and persuaded the farmer to sell him the oil and gas lease on his land. This transaction, coupled with the inspiration supplied by a copy of *The Oil & Gas Journal*, was all the stimulus Carl needed to strike out on his own.

In his first year—1923—he earned only \$375, but nothing could cool his desire to do better. Carl taught himself the leasing business, making and learning from mistakes along the way. He once traded his automobile for a lease, only to learn that he had made a deal with the wrong person and now had no car and no lease to resell. Later, he obtained a valid lease on the land, which would later have the discovery for the Cheyenne Valley field with a Redfork core showing thirty-five feet of saturated pay zone.

In 1930, Henry accepted an offer from Carl and joined him in the oil business. Henry had recently graduated from Oklahoma A&M College in Stillwater, where he received a B.S. degree in Education and was an outstanding member of the track team.

From 1930 until just before World War II, Carl and Henry owned and operated a Texaco Service Station in Enid. They used the income from this business to support their families and any extra money was used to buy leases and minerals. Carl and Henry also farmed during this period to obtain additional income.

By the end of World War II, the Gungoll brothers were working as lease brokers for several companies. Carl networked well with all types of people; landowners, oil scouts, bankers, engineers, and geologists. He used this information to anticipate where companies would want to buy acreage. Henry would do the title work at the courthouse to make sure they were getting valid leases, and carried a portable typewriter with him so he could prepare leases at a farmer's home.

By the 1950s, the oil and gas industry was experiencing a downturn. The Gungoll brothers had collected a large inventory of undrilled leasehold and delay rentals were becoming due more frequently. The brothers were forced to sell leasehold to meet the rental payments.

During the 1950s, it was not thought to be economical to drill for oil and gas in many areas west and southwest of the famous Garber fields. However, by the late 1950s, Carl and Henry had acquired more than twenty-five thousand leasehold acres in what is now known as the Sooner Trend. Because of the uncertainty of finding oil and gas, they were able to negotiate ten-year leases for \$1 and \$2 per acre.



Left: Letter from NBC's Today Show, hosted by Dave Garroway.

Below: The opening titles of the documentary Wildcat in which Henry and Carl Gungoll were the main characters.

Bottom: A shot from the documentary Wildcat showing Henry Gungoll with a hat on, 1959.



In 1959, the Gungoll brothers starred in a television documentary called *Wildcat*. The documentary was filmed by the NBC television network and aired as a six-part series on Dave Garroway's *Today Show* to salute the hundredth anniversary of the petroleum industry. The film crew followed and filmed the Gungoll brothers as they researched courthouse records, negotiated leases with farmers, and raised capital by selling their ideas to a large investor. Television cameras followed the drilling of the wildcat well in Garfield County named the Gungoll and Gungoll No. 1 Bullock. Though the well





Above: A shot of Henry Gungoll from the documentary *Wildcat*.

Below: Carl Gungoll from the documentary *Wildcat*.



they drilled was a dry hole, the Gungoll brothers each received an Outstanding Service Award from the Oklahoma Petroleum Council in 1959 for making a major contribution to the industry's information program.

From January 1960 to March 1963, several wells were drilled in the large block of unproved leasehold held by the Gungoll brothers in the Sooner trend. With time running out on their leases, a break came in September 1962, when Crawford Oil & Gas Reserves completed the Lamunyon 1-7. It came in at forty-nine hundred MCF per day from the Mississippi formation.

In March 1963, Sinclair Oil & Gas Company approached the Gungoll brothers about purchasing all of their acreage in six townships in the Sooner Trend. Sinclair was not interested in making a checkerboard purchase, but was interested in purchasing all of the acreage with the intention of developing the leasehold. On April 10, 1963, the Gungoll brothers sold the large block of leasehold

for \$921,600.05, while retaining a production payment on each lease of \$200 per acre. A large factor in the decision to sell was the cost of building all the gas pipelines and processing plants for this newly discovered field.

The Sinclair sale, coupled with the emerging Sooner Trend, allowed the Gungoll brothers to expand their exploration business as oil and gas operators in the summer of 1963, while at the same time continuing to utilize their great skills as independent landmen to obtain leasehold.

On June 8, 1965, Gungoll & Gungoll completed the Baker 1-14 in the city of Enid for a prolific gas distillate reserve. The wildcat well confirmed a huge area in the northern part of the Sooner Trend comprising approximately 125,000 acres. The Baker 1-14 had a calculated open flow of 19 million cubic feet of gas, with 340 barrels of distillate per day from the Mississippi formation. Recent advances in drilling and completion played a key part in the success of this discovery well, which sparked the northern part of the Sooner Trend.

The Gungoll brothers went on to drill many successful oil and gas wells in the Sooner Trend during the second half of the 1960s. The Sooner Trend was considered by many to be the only major find in Oklahoma during the 1960s, with Carl and Henry playing a key part in finding and developing this trend.

Henry passed away on August 6, 1970, at the age of sixty-five. Henry and his brother believed in hard work and a good education, and Henry worked hard to obtain his education by making a daily ten-mile trip from his prairie farmhouse to Waukomis High, and—for his senior year—a seventeen-mile trip to Enid High School.

Carl went on to drill many more successful wells throughout the 1970s and early 1980s, and was an early visionary who believed the Anadarko Basin held many producing zones. One of Carl's favorite sayings was, "The harder I work, the luckier I get." He passed away on October 10, 1984, at the age of eighty-one.

It was quite a journey from the small prairie farmhouse where the Gungoll brothers lived as boys to their final resting places. Both men left a lasting legacy of thrift, determination and perseverance for their children, grandchildren, and the industry.

THE HENRY GUNGOLL FAMILY OF COMPANIES

Founded on the work of Henry H. Gungoll, a pioneering landman and producer who started in the oil and gas business in 1930, the Henry Gungoll Family of Companies consists of Henry Gungoll Operating, Inc., Henry Gungoll Associates, LLC, Henry Gungoll Properties, LLC, and Henry Gungoll Data Services, LLC.

On February 1, 1973, the business became known as Henry H. Gungoll Associates, a partnership. James H. Gungoll, former Oklahoma state representative and Oklahoma highway commissioner, took the reins of the company as managing partner.



James learned the value of hard work at a young age by working from sunup to sundown on the family farms during the summers. He received a bachelor's degree from Oklahoma State University in 1960. After graduation, he went to work in the family oil and gas business from 1960 to 1966 as a landman. In addition to landwork, he also attended geology classes at Phillips University and sat out on company wells during their drilling and completion. He would later go back to school and earn a law degree from the University of Oklahoma in 1972.

During his tenure he expanded the business through drilling, mineral acquisitions, and investing in new working interests. Exploration activity focused primarily on the Sooner Trend and extended north into northern Garfield,

Alfalfa, Grant, and Woods Counties. Mineral acquisitions in the 1970s have proven to be visionary as they were acquired at a low cost and now underlie hot areas for drilling in the Anadarko basin.

On December 31, 1980, Henry H. Gungoll Associates completed the Alice 1-12 in the Misener formation, which sparked a boom in the East Kremlin Field. The Alice 2-12 came in at 1,235 barrels of oil per day and 926,250 cubic feet of gas per day. The company drilled several more successful Misener wells in the field which capped off the drilling boom which occurred in the Garfield County, Oklahoma, area during the early 1980s.

On April 10, 1986, Henry Gungoll Operating, Inc., was formed to take over operations of all of the company's operated working interests. The company still operates several wells that Henry H. Gungoll and his brother Carl drilled in the 1960s.

James, who passed away on January 16, 2008, was also a great advocate for the oil and gas industry. He and the company were members of several industry advocacy groups, and in 1986 he was elected as a member of the Independent Petroleum Association of America board from western Oklahoma. He was also elected vice chairman of the Board of the Energy Consumer and Producers Association. The Association was responsible for several suits over the regulations of the Federal Energy Administration. This organization later helped to spawn "the Energy Congress," which held a convention at Phillips University in Enid from June 1-3, 1977. High level politicians and industry executives from all over Oklahoma and the United States attended the convention. In addition, the company made a significant investment in Oil Law Records, which has made a key contribution to oil and gas information for the industry.

Today, Henry's grandchildren now manage the company, marking three generations of family in the oil and gas business.



Above: Drilling of the Alice 1-12.
PHOTOGRAPH COURTESY OF THE ESTATE OF
ALICE M. ZALOUDEK BY JUDY M. ZALOUDEK

Left: Portrait of Henry H. Gungoll.

Below: James H. Gungoll.



CARL E. GUNGOLL EXPLORATION, LLC



Above and below: Carl E. Gungoll.

Carl E. Gungoll Exploration, LLC (CEGX) is an independent oil and gas company engaged in the acquisition, development, production and exploration of oil and gas in Oklahoma, Texas, Colorado, and Mississippi.

The company was formed in 1987 by Thelma J. Gungoll and Carole J. Drake, and named in memory of the late Carl E. Gungoll, a pioneer in the Oklahoma oil business. Carl Gungoll was an active participant in the development of the Mississippi Limestone play in the Sooner Trend field of Garfield and Major Counties.

Carl owned one of the first automobiles in Enid and one day offered his brother's school teacher, Thelma Compton, a ride to the elementary school. That car ride was the beginning of a long relationship. Carl and Thelma were married in 1929. They had two daughters, Myra Ward of Enid, and Carol Drake of Oklahoma City. Both daughters shared their father's love for the oil and gas industry and each graduated with degrees in geology from the University of Oklahoma.

Carl's dedication to the Oklahoma oil industry lives on through CEGX, which currently operates over 150 wells in Oklahoma, Texas, and Mississippi and will drill 15 to 20 wells a year in their core areas. The firm is now headed by Carole Drake's son, Ramsey W. Drake II.

Drake received a B.S. in geology from the University of Oklahoma in 1981 and an M.B.A. from Southern Methodist University in 1984.

In its early years, CEGX invested heavily in the Misener Play of Grant and Alfalfa Counties. Although CEGX was able to develop the SE Hawley, Drake began looking for a new, lower risk play. He hired Peter Norton in 1988 to help develop prospects in the Cement Field of Caddo and Grandy Counties. Several of these explorations were huge economic successes.



CEGX acquired Chevron's assets in the Piceance Basin in 2000. The acquisition consisted of several producing wells and more than forty-five hundred acres. CEGX then purchased Stachan's assets in the immediate area, which consisted of two wells and the important gas gathering system. To complete the acreage block, CEGX purchased the assets of Tom Brown in 2002. The company sold its entire asset base in the Piceance basin to EnCana in 2004.



In 2001, CEGX entered Mississippi by acquiring the assets of Legacy in the Poplarville and Pistol Ridge fields. CEGX also made acquisitions in Holiday Creek, Vintage, St. Patrick, Liberty, Dinan, and McRaney Fields.

In 2003, CEGX acquired the Edmonson (San Andres) Field in Gaines County, Texas. The San Andres formation is the largest producing formation in the Permian Basin and is known for having long-lived oil reserves. CEGX retained one promising area and sold the other fields to Riata in 2006. The area retained is called the Tiger Field and CEGX has drilled fifteen wells in the area and plans to drill thirty more. The area is thought to have approximately eight MMBOE potential.

In 2008, CEGX acquired the Hoople and Aycock Fields of Crosby County, Texas. The company continues to purchase acreage to increase its field size and has drilled many new wells in the Clearfork formation to increase production. The company has identified thirty-five PUD locations for the Clearfork formation and will drill them within the next two years.

In 2006, Drake determined a definite need to be involved with a drilling company with state-of-the-art rigs that could help drill the company's demanding prospects. The principles of CEGX, along with Steve Hale and Energy Spectrum, formed Forrest Drilling Company to assemble seven SCR rigs that could drill horizontal and directional wells. The company drilled wells for CEGX, Range, St. Mary's, Sklar, Ward, and many others for nearly six years. Forrest Drilling was sold to Chesapeake in 2011.

CEGX's business strategy involves defining new areas where the company can use the expertise developed from the Cement Field, narrow the focus to key operating areas where the company enjoys a competitive advantage and where multiple pay zones are present, and focusing on and around existing fields where new technology can help lower finding costs. In addition, the strategy calls for making bolt-on acquisitions to supplement drilling, and developing exit strategies to monetize the assets.

CEGX has always emphasized honesty and integrity in every transaction. The company prefers to use internally generated prospects, but will buy prospects from proven outside generators. CEGX's management team boasts more than 130 years of experience, and four employees have more than twenty years with the company.

Carl's penchant for hard work and his unwavering commitment to honesty and integrity in every transaction lives on in today's Carl E. Gungoll Exploration. Carl's favorite expression was, "The harder I work, the luckier I get," emphasizing that hard work almost always guarantees a positive outcome.

Another phrase Carl loved to recite was, "Don't let anyone steal your dream." Although he lacked formal business training or even a high school education, Carl overcame major disappointments early in his career through his incredible perseverance and strong work ethic. Carl lived his dream as a successful oil and gas entrepreneur and as a loyal husband and faithful father.



Ramsey W. Drake II and Carole Drake.

WARD PETROLEUM CORPORATION

Ward Petroleum Corporation, founded in 1971, has built its enviable reputation on a strong foundation of integrity and hard work. Since company founder Lew Ward drilled his first well near Enid, Ward Petroleum has drilled or participated in more than 1,000 wells, some as deep as 23,000 feet.

Ward Petroleum has grown its reserve base through drilling. However, in recent years the company growth has accelerated through strategic acquisitions. Historically, the company's focus has been concentrated in the Anadarko and Arkoma Basins. The company recently opened an office in Fort Collins, Colorado to develop prospects in the Rockies.

Ward Petroleum focuses on geologically complex areas with multi-pay and multi-well potential and uses tools such as 3D seismic to reduce risk. Most recently, Ward has used advances in horizontal drilling and completion to unlock the tight and compartmentalized reservoirs in the Anadarko Basin.

Lew Ward was born in Oklahoma City in 1930. He learned about the oil and gas industry from childhood. His father was a driller, tool pusher and drilling superintendent. He spent his early years moving from one oilfield town to another including Shawnee, Guthrie, Odessa, Texas, and Mount Vernon, Illinois.

He graduated from high school and junior college at Oklahoma Military Academy and worked as a roustabout and roughneck during the summer.

Ward received a B.S. degree in petroleum engineering from The University of Oklahoma in 1953 and is a Registered Professional Engineer in the state of Oklahoma. He is also a graduate of the Owner/President Management Program at Harvard University.

Following his graduation from O.U., Ward served as a first lieutenant in the U.S. Army and was assigned as a pipeline engineer on Okinawa. After his service years, Ward worked for a large independent oil company headquartered in Dallas.

Lew married Myra Gungoll in 1955 and a year later, the Wards moved to Enid and formed Ward-Gungoll Oil Investments with his father-in-law, Carl E. Gungoll. This is where Ward gained experience in lease brokerage and did consulting work as a petroleum engineer in Enid. In 1963 he acquired some acreage in Garfield County and drilled his first well in a play that would become known as the Sooner Trend. New developments in hydraulic fracturing had "unlocked" the secret of the oil rich, but tight Mississippian reservoir. Almost every quarter section from Hennessey to Enid to Fairview saw a drilling location. The Sooner Trend was one of the first "resource" plays and contributed greatly to the early success of Ward Petroleum.

Ward believes the company's strength lies in its focus. "We want to be able to look at an area that is geologically complex with multiple potential pay zones that can be subjected to newer exploration techniques and be able to acquire a substantial acreage position in those areas", Ward says. "We focus on areas that have potential."



Above: Lew and Myra Ward.



Ward Petroleum has logged a number of major achievements since drilling its first well, but one of the largest was a discovery in Major County. Ward explains that the large Hunton discovery had enough reserves to cause a pipeline company to lay a line more than two hundred miles, all the way from Miami, Oklahoma, to just south of Ames, Oklahoma. "They felt the risk in laying that pipeline for one well was justified because they thought there would be many other wells discovered in the area. They were right."

One of Ward Petroleum's proudest accomplishments was the ability to grow the company during the downturn of the 1980s when the rig count fell from almost 900 in 1982 to approximately 100 in 1987. Feeling the pinch, a number of banks were forced to close during that era, including Penn Square Bank.

In explaining how Ward Petroleum was able to maintain its level of activity, Ward said "We just didn't pay much attention to people with a pessimistic attitude. We had our sights firmly set on where we were going and failure was not an option.

"We drilled approximately 300 wells during that period of time and participated with other operators in over a quarter of a billion dollars worth of drilling and found over 250 billion cubic feet of gas. During that same period, we were able to pay off the debt we had acquired for the purchase of five new drilling rigs. We were able to do that on time and without missing a payment. We classify that as a small miracle. But there were a lot of good people helping us do it."

Bill Ward followed in his father's footsteps, joining the company in 1984 after receiving a degree in petroleum engineering from the Colorado School of Mines and a master's degree in business administration from Southern Methodist University. Bill became president and CEO of Ward Petroleum in 1997.

Among his many contributions, Bill created Gale Force Compression Company, which earned a spot on *Inc.* 500's list of "Fastest Growing American Companies" in 1994. Under Bill's leadership, the company continued to add value through drilling and through



increased efforts in acquisition of producing properties. Assets, reserves and revenues recorded a four-fold increase after a few short years. In the past three years alone, reserves have grown at a thirteen percent annual rate.

Among its many industry honors, Ward Petroleum Corporation has been listed in the "Top 100 Fastest Growing American Companies"

by *Inc.* magazine and has been named a "Blue Chip Enterprise" by *Nation's Business* magazine. Most recently, Ward received the "Energy Advocate of the Year" award in 2011.

Ward is optimistic about the future. When asked...what makes Ward unique? Bill answers, "First, it is our attitude. We have a 'can do' attitude and we make things happen. Second, I would point to our experience. We have 8 folks that have been with us over 30 years and 18 folks that have been with us over 25 years. Third, we treat people right. This is a core value of our company and people want to do business with Ward."



Below: Left to right, Bill and Lew Ward.



TRIPLEDEE DRILLING COMPANY

Oklahoma was still considered a new state when Errett Dunlap moved into the area. In the summer of 1913 he began buying and selling mineral properties and leases when the first well was drilled in the Healdton Field in Carter County. Dunlap started his business with three wells on the corner of Highways 53 and 76 south of Fox in 1918. These wells are still producing today, ninety-three years later. Dunlap is considered one of the pioneers in the early development of the oil business in Oklahoma.

During the early years of World War II, oil and gas production from Oklahoma and Texas were instrumental in providing the Allies with necessary fuel. Soon after the war ended, the demand for gas brought about a “boom period” of abundant and cheap fuel. This demand was significant in expanding the company by buying drilling rigs and exploring for oil and gas. After WWII, Errett Dunlap was joined by his son, Errett Dunlap, Jr., and daughter, Elsy Ve Dunlap Van Eaton, to form Tripledee Drilling Company in 1950.

Together with his son-in-law, Charles Van Eaton, a geologist, Dunlap bought two drilling rigs and expanded the business into drilling and operating wells in a five county area. Most of the wells drilled in the 1950s and 1960s are still producing fifty years later. Currently, the company drills, completes, maintains and ultimately plugs and abandons oil and gas wells.

With the 1950 formation of the company, many other people were credited with its success including, Albert Allen, tool pusher responsible for running the rigs; Henry Ogletree, production foreman, responsible for field production; Don Cude and Mary Harrell, land title, accounting, and regulatory work. In later years, Ralph Payne handled the drilling rigs; Otis Harris, Field Production; Kay Harrington, and Dana Dabbert, title, accounting and regulatory work followed by Dale Ray Gaither, Gerald Monroe, Hubert Harris, Jennifer Evans, Dave Fackrell, and Carrie Manteufel respectively.



An original postcard printed in 1906-1907 before statehood and sent from Errett Dunlap, to someone who gave the postcard back to him about fifty years later. The building has not changed much—as the photo on the facing page, taken in 2011, can attest.





Later, ownership and management of the company was taken over by a third generation, Tom and Nancy Dunlap, and has now been passed on to their children—Cathy, Vicki, and Phil Black. They will continue the family's management of the company with their children, Ben and John Moon-Black, and Gunnar, Haakon, and Lilli Black.

In the future, the company plans to continue an active drilling program as well as to concentrate more and more on secondary and tertiary methods of recovering more of the oil in place, as the science of oil recovery continues to improve. Secondary recovery projects are already in place to inject and recharge reservoirs with water, and many of these reservoirs are being tested for the use of polymers as tertiary methods of recovering additional oil.

Tripledee, its founders, current owners, and its employees have supported many community projects and charities throughout the years, from the early day Masons and Salvation Army to the Ardmore Mercy Memorial Hospital and YMCA. The company also supported funding for the Memorial

acknowledging the Sherwood Forest project by Ardmore's Lloyd Noble to take drilling rigs to England during WWII to increase England's domestic oil production for the war effort. Over the years, the company supported the Chamber of Commerce and Main Street projects, the building of the Higher Education Center in 1973, and the annual Arbuckles to Ardmore Marathon event.

The company maintains its office at 100 West Main Street in Ardmore in a building that was the first three-story office building in Ardmore. It was built in 1906, survived the railway explosion and fire in September 1915, and was purchased by Errett Dunlap in 1937. The company manages over 200 wells with eight employees along with several outsourced operational services and consultants. As newer wells are drilled, the company expects to continue business another fifty years.

For more information about Tripledee Drilling Company and its services, please visit www.tripledeedeeoperating.com or www.ardmoreoilandgas.com.

OTEY JOHNSON PROPERTIES, INC.

Dr. Otey G. Johnson was born in Battle Creek, Michigan, on July 14, 1914, the son of Roy M. Johnson, one of the first oilmen in southern Oklahoma. Otey was raised in the Ardmore area, but later left Oklahoma to attend college in California, graduating from medical school at Loma Linda University. However, after returning to Oklahoma, Otey never practiced medicine; he became interested in the oil and gas business. Following in the footsteps of his father, Johnson began to purchase minerals rights and interests in oil and gas wells and in the 1970s, he teamed up with Keith F. Walker, a geologist from Ardmore, and together they discovered a significant oil field in western Carter County, Oklahoma.

Although Dr. Johnson was trained to be a medical doctor, he was more interested in finding “hydrocarbons.” He often times stated that he preferred, “to treat his wells, and leave the sick alone.” Soon after graduating from medical school, Dr. Johnson found his first small oil field near Minerals Wells, Texas. After that, he spent the remainder of his life searching for more oil and gas. Although he acquired a minor in geology, he was an avid believer in “creek-ology,” learning to read what the surface told him about what was underneath the ground. He would often take friends to places around Oil City, Oklahoma, to show them oil stained rock layers or oil drenched creek beds explaining the geology behind the evidence of oil on the surface. His knowledge of southern Oklahoma geology, combined with his unique “creek-ology,” allowed him to extrapolate the best spots to drill for oil.

Dr. Johnson joined with other prominent oil and gas businessmen—including Hugh Ledbetter, H. M. Petree, Errett Dunlap, and Taft Milford—in developing properties in southern Oklahoma. Dr. Johnson conducted



Dr. Otey Johnson doing what he enjoyed most—getting his hands dirty in oil.

the majority of his oil and gas business by telephone. His records were kept in cardboard boxes in the old granite mansion his father had constructed in 1921, in a Mediterranean-Style home located adjacent to his father's home, in the two hotel rooms rented at the time of his death, and in the back seat of his car.

When Dr. Johnson travelled out of town he relied on Lou Ann Walker, daughter of Keith Walker, and Bonnie Kendall, his “girl Friday,” to handle his accounting and pay bills. In his later years, he depended heavily upon Alison Smalley to research county records to determine mineral ownerships, and then to negotiate and purchase oil and gas leases. After his death, it was through Smalley's tireless efforts to organize and make sense of Dr. Johnson's records that Otey Johnson Properties, Inc. was able to function as a business.

Throughout his life, Dr. Johnson suffered from severe allergies. He often travelled to areas with dryer climates such as New Mexico, Arizona and California. While away

from home, he began collecting western art and historical documents. His art collection would eventually include significant works by Charles Russell, Frank Tenney Johnson, Edward Borein, Olaf Wighorst, I. E. Couse, Nicholai Fechin, and Joseph Henry Sharp.

Over the course of his life, Dr. Johnson accumulated oil and gas leases and mineral properties throughout southern Oklahoma. Under the provisions of Dr. Johnson's Trust, a net profits overriding royalty interest in all of his oil and gas properties was conveyed to Ardmore Sanitarium and Hospital, a 501 (c) (3) charity, which ultimately changed its name to Otey Johnson Foundation (OJF).

In 1985, Otey Johnson Properties, Inc., (OJP) was formed to hold, operate and further develop the oil and gas properties owned by Dr. Johnson at the time of his death. The mission of OJP is to manage the oil and gas properties gifted by Dr. Otey

Johnson primarily for the benefit of Otey Johnson Foundation. The revenue generated through OJP during the last three decades has made possible many of the charitable activities of Otey Johnson Foundation, which recently reorganized and now supports and funds the charitable activities of Ardmore Institute of Health (AIH).

Thomas F. Dunlap was appointed by Dr. Johnson as one of his five trustees to oversee and administer his estate. Dunlap was the only trustee who had business experience in the oil and gas industry. He was a petroleum engineer by training and came from a long line of oil men including his father Errett Dunlap, Jr., and his grandfather, Errett Dunlap. Dunlap spent several years working with Exxon-Mobil Oil Corporation in the Gulf of Mexico and in West Africa before returning home to Ardmore to join his father in building their own family oil and gas business. Dr. Johnson had a great deal of admiration and respect for the Dunlap family and how they operated their business. He chose Thomas Dunlap to carry on that tradition in operating and developing OJP.

Today, Otey Johnson Properties, Inc., has approximately 230 producing properties in nine counties in Oklahoma, Texas, and Colorado. In accomplishing its primary purpose, OJP continues to manage and develop Dr. Johnson's oil and gas properties for the benefit of the Otey Johnson Foundation, which in turn funds the charitable mission of AIH. It is through AIH's mission that Dr. Johnson's legacy is continued to this day: to promote and advocate healthy lifestyle choices through publishing, health care delivery, research, education, and other activities that have as their ultimate purpose the reduction and prevention of chronic diseases in the general population.



Johnson's "creek-ology" often resulted in situations like the one pictured here—finding oil at or near natural oil seeps.



BRACKEN ENERGY

Bracken Energy was originally engaged in the exploration, acquisition, and development of oil and gas reserves with a primary emphasis in the Anadarko Basin of western Oklahoma and the Texas Panhandle. Now in its fifth decade, Bracken Energy continues in a non-exploration capacity.

The entrepreneurial spirit and exploration style of the company's founder, Barth W. Bracken continues to be the driving force behind this successful independent energy company. Bracken grew up in the oil-soaked fields around Okmulgee, Oklahoma and was introduced to the business when he worked as a roustabout during high school. With no particular plans in mind, Bracken entered the University of Oklahoma in 1950 but it was a freshman level geology course which captured his imagination and gave him a love for the science. After earning his B.S. in geology in 1954, he worked as a field geologist for John Karcher at Concho Petroleum before serving as an Army officer for two years. Bracken then returned to the University and earned a master's degree in geology in 1958.

After school, Bracken spent the next dozen years as a geologist for Lone Star Gas and Lone Star Producing Companies in Texas where he



Above: Bob Hoover and Barth Bracken, 1971. They are at Hoover & Bracken, Inc. #1 Tulsa Royalties Sec 5-T14N-R4E in Lincoln County, Oklahoma.

Below: Barth Bracken, a tool pusher, and Carl Hale at a drilling well in Dewey County, Oklahoma.



built an impressive resume of profitable finds for his employers. One notable find was in Sutton County, Texas. Though several oil exploratory wells had already been drilled with little success, Bracken suspected a significant amount of gas and oil may have been present. After several weeks of careful detective work, his study revealed a seventy mile long stretch of Lower Canyon Limestone with a pay section the discovery wells had drilled right through. The resulting Fort Terrett Ranch field was a good oil and gas producer for Lone Star for many years.

Despite demonstrated success for Lone Star and ever-increasing responsibilities, which drove him up the corporate ladder and relocated him around the southwest from Dallas to Denver, Bracken was attracted by the more nimble opportunities offered by working for oneself. In 1970, he was approached by long-time friend and Sigma Alpha Epsilon fraternity brother Robert Hoover and met with a proposal to start their own independent exploration company. After growing up in Oklahoma City, Hoover attended the University of Oklahoma and graduated in 1954 with a degree in finance. He served two years as an officer in the United States Air Force and then joined Pan American Petroleum (Amoco) as an oil and gas exploration landman. Four years later, he resigned to join



the ranks of the independent producers and was an officer and director of two independent companies before joining with Bracken.

The arrangement between the two was simple: Bracken would find the oil and gas and Hoover would find the money to drill and produce them. Bracken remembers that he had reached a fairly high level of technical competence while Hoover had made important connections in the industry, “so we decided to give it a whirl.” With only a full-time receptionist and a part-time bookkeeper to hold down the office, Bracken set out, maps in hand, for the Anadarko Basin while Hoover drummed up partners. Hoover & Bracken, Inc. was in business.

Their first major find came quickly. The Anadarko Basin had held Bracken’s interest for some time, but not a lot of independents had explored the area. He found large gas reserves in the Buffalo Wallow Field in Hemphill County, Texas, and many of the wells produced over thirty billion cubic feet of gas per well. That success also provided the model for the company’s future endeavors—they always focused on finding huge reserve wells because one fantastic well can carry an entire drilling program. They took long shots and did pretty well at it. Throughout the 1970s, the company was a large supplier to Northern Natural Gas for its extensive pipeline. Northern’s acquisition manager dubbed Bracken “one of the best oil and gas finders in the country.”

In 1972, two new partners were brought in and the company reorganized into Hoover &

Bracken Oil Properties, Inc. Charles N. Nobles was brought in as financial vice president; he was a certified public accountant with extensive experience in the industry who was lured away from Cleary Petroleum. G. Carl Hale became Hoover & Bracken’s vice president of operations and he oversaw the company’s drilling program. Hale brought degrees in engineering—geological and petroleum—to the company in addition to twenty years of experience gained at Kathol Petroleum and Eagle Oil Company. The new partnership formed with a specific goal: they aimed to have reserves valued at \$5 million in five years. The new company expanded outside the Anadarko Basin, but seven straight dry holes in Louisiana and another dozen in Kansas convinced them to stick to what they knew best. Back on track



Above: Testing a gas well in the Texas Panhandle.

Below: The Bracken Group (from left to right): Phil Jones, Bob Hoover, Tom Cronin, Carl Hale, Charlie Nobles, Barth Bracken, and Bill Jezek.





Above: Bracken Group with Baker & Taylor Drilling Company. Shown are (from right to left) Max Banks, Charlie Nobles, G. Carl Hale, Don Bowie and Chester Lambert.

Below: Christmas in Bracken.



on their "home turf," Hoover & Bracken met with a string of big successes. In 1975 they sold their reserves to W. R. Grace Company for double their stated goal.

With similar goals in mind, Bracken and Nobles reformed the partnership later that year as HBOP, Ltd. with J. Phil Jones assuming the land work, Tom Cronin the geology and Carl Hale engineering. Jones brought a decade of experience from Conoco, Apache, and Tenneco. The company continued with its winning formula of identifying and participating in high quality, low to moderate risk oil and gas projects and maintaining a small, efficient staff. By the end of 1976, they had yet again reached

their goals and made a second sale of reserves to W. R. Grace Company,

In 1977 the company reformed for a fourth time as Hoover & Bracken Energies, Inc., though Hoover left to explore other opportunities and ultimately became involved in the family-owned energy company, Maxwell Resources. Bracken continued to exploit the Anadarko Basin and benefited greatly from changes in federal energy policy and the energy industry in the late 1970s. Ultimately, this company merged into Bracken Exploration Company and made a public stock offering in 1981. Jones exited the company while new members of the team were Vice President of Operations Bill D. Turner who came to Bracken after a dozen years at Cities Service, Vice President of Geology William M. Smith who came over from Samedan, and Vice President of Land Van A. Jones formerly at Ennex. After amassing significant reserves worth over \$30 million, Bracken Exploration team members elected to liquidate the company yet again and sold most of the company's assets to Dycos Petroleum in early 1986. Later that year the partnership reorganized into the current iteration of the company called Bracken Energy Company.

Part of the success of the Bracken companies has always been the development of a small, efficient and hard-working staff. A number of very dedicated and fine people worked at Bracken companies over the years including Flo Coffee, Marilyn Carroll, Sharon Rosenbaum, Sandy Thomason and John Trigg.

In the years following the sale to Dycos, Jones works for Devon. Bracken employees Tom Cronin, Mike Ming and Mark Mazza formed the successful K. Stewart Petroleum Company and following the Bracken model sold the majority of their reserves to Chesapeake. Bill Turner, Van Jones, and William M. Smith formed Bracken Operating, LLC. Today Bracken Energy is headquartered in Oklahoma City and continues to operate wells and participate with others in drilling ventures. Hale is deceased, but Bracken and Nobles remain on the management team. Bracken still prospects on his own and together with Bill Smith as WMS & BWB Investments, LLC.

PETROFLOW ENERGY CORPORATION

Petroflow, an Oklahoma based exploration and production company, was originally founded in 2004. However, since that time the company has undergone significant changes and reorganized with new management and a new strategy beginning October 2011. Petroflow has been transformed from an unconventional single formation focused entity, that had predominately non-operated assets with little technological depth in the company, into a company with conventional oil and liquid rich gas asset potential in multiple formations with a heavy emphasis on engineering and geosciences.

The primary goal of Petroflow is to utilize leading technology, seismic, new drilling and completion techniques to redevelop old fields or underdeveloped fields. The belief is that there is an immense amount of bypassed hydrocarbons that at the time of development in the past was not economical to extract. However, the concept is that current available exploration, drilling and production technologies can now be applied to successfully extract these hydrocarbons in commercial quantities.

One of the key events that led to the formation of the new Petroflow was low energy prices combined with difficult capital markets during 2008 and 2009. Out of these difficulties, Petroflow transformed itself from a one-dimensional unconventional resource player to a conventional oil and gas player focused on developing multi-formations with a large emphasis on technical capabilities. The need to diversify the revenue and reserve base required the company to refocus and reshape its strategic direction.

The founders of the new Petroflow Energy are President and CEO Richard Menchaca and Vice President and Chief Operating Officer Dennis Baggett. The team also includes Land Manager Donna Davis and Accounting Manager Jeff Young. Another important member is Jerry Wilson and his team of geoscientists and engineers in Norman, Oklahoma.

With principle offices in downtown Tulsa, and technical offices in Norman, the company currently employs fourteen people with expectations of growth in both offices over the next several years. Although the company is newly formed they have a conservative assortment of projects already on their play list and expect to maintain a consistent drilling program.



Left: President and CEO Richard Menchaca.

Right: Vice President and Chief Operating Officer Dennis Baggett.

Petroflow employs a team of very charitable employees who are active in the community, from sitting on the boards of nonprofits, to ensuring the basic needs of local residents are met, as well as organizing and sponsoring a national baseball tournament for high school kids. Petroflow will have corporate initiatives to build on these charitable activities and prepare the way for a broader participation in others.

With a business plan to develop conventional oil and liquid rich gas reserves in fields that have been overlooked or are under developed by applying current exploration and development techniques that were not previously available, the company is excited about future prospects in Oklahoma. By maintaining an aggressive development plan, Petroflow is looking forward to creating new employment and resources opportunities in Oklahoma.

SAMSON INVESTMENT COMPANY



Above: Charles Schusterman.

Below: Charles with his daughter Stacy.

Samson Investment Company was founded in 1971 by oilman Charles Schusterman. From its humble beginnings, Samson grew to employ a private corporate business model and a consistently strong financial position, allowing the company to focus on long-term profitability.

Charles Schusterman, a 1958 honors graduate from the University of Oklahoma, majored in petroleum engineering. With a good business mind, natural leadership skills, and a passion for the energy business, he embraced his role in the oil and gas industry. In the early 1960s he worked with Shell Oil Company before enlisting and serving in the U.S. Army. After he returned to Tulsa in 1961, he invested a financial family gift of \$30,000 from his mother into a partnership with his brother Dan. The business was named S&S Pipe and Supply Company.

Although the company was marginally profitable in the 1960s, the post World War II price restrictions and federal energy policies drove most major oil companies to the onshore Gulf Coast, the Gulf of Mexico and overseas markets. Houston and the south Texas coast eventually took over and became the major oil and gas markets. The resulting exodus of the major oil companies from Oklahoma created a niche for much smaller, independent oil and gas companies. These companies focused on domestic properties left behind.



In 1961, Schusterman saw an opportunity and added an operating division to S&S Pipeline and Supply Company called Schusterman Oil Company. The company's operations began evaluating, purchasing and reworking marginal oil producing properties. With increased cash flow from these activities,



the company bought additional properties. In 1967, Schusterman found an excellent opportunity in some Kansas properties being sold by a "poor operator." He partnered up with Joe Singer, a Tulsa Oilman, giving rise to the Rocket-Schusterman Oil Account. Working along with Singer, he learned many business philosophies which assisted in the company's success, while other independents went under.

In 1971, Schusterman learned about production facilities for sale near Fresno and Bakersfield, California, by Amerada Hess. The production facility contained thirty-five producing lease and production wells. Confident of positive market changes, he approached potential investment partners, mostly business associates in Tulsa, encouraging them to invest in the California wells. With the investment and participation of eight working interest owners it became a profitable business relationship, with many of them becoming partners. On November 23, 1971, Schusterman created Samson Resources Company to assume operations of the





Amerada Hess properties. Later, in 1972, Samson Properties Incorporated was created to act as general partner in limited partnerships. By 1979, Samson celebrated the drilling of their hundredth company-operated well in addition to the opening of offices in Denver and Houston. However, during the turbulent eighties, oil prices began to drop. By 1984, Samson began consolidation of Tulsa operations from five office buildings into the Williams Towers II, and in 1986, Samson sold oil for \$9.00 per barrel and gas for \$1.00 per MMBtu. The Denver and Houston offices were forced to close when the average world oil prices dropped by more than fifty percent.

However, by 1989, business was improving and Samson opened an office in Calgary, Canada. In the early 1990s, Samson became the fourth largest gas producer in Oklahoma, acquiring eight hundred wells from Mesa and Seagull, doubling the company's size. Dyco Petroleum Company and its subsidiary Circle L. Drilling Company were also acquired. Other properties included Innisfail properties from Shell, Grace Petroleum, Geodyne Resources, and properties purchased in the

Komi Republic of Russia. In 1998, East Texas properties were acquired from Nuevo, starting up a major expansion in the area and the Houston offices were reopened.



Charles and Lynn Schusterman.

In 2000, Samson acquired substantial natural gas producing properties and drilling acreage in Wyoming, establishing a strong Rockies area operating base. During this time Schusterman retired as CEO of Samson and was inducted into the Oklahoma Hall of Fame. He received a Lifetime Achievement Award from the Oklahoma Independent Petroleum Association. Sadly, Schusterman passed away on December 30, 2000.

During the early 2000s, Samson acquired more properties including their first well operated in the shelf of the Gulf of Mexico. The Tulsa Office was restructured into four divisions—East Texas, Mid-Continent, Gulf



Coast, Tight and Unconventional Gas. The Denver office was reopened and a Midland, Texas, office was opened. Property acquisitions for 2002 totaled \$120 million and included properties in Louisiana, South Texas, Wyoming and twelve Gulf of Mexico tracts.



Above: Charles Schusterman.

In 2003, crude prices soared after the United States invaded Iraq. Approximately \$146 million worth of properties were acquired from Contour Energy in Louisiana. By 2004, Samson employed nearly one thousand employees. An office in Aberdeen, Scotland, was opened to expand commitment to North Sea opportunities. The largest acquisition in Samson's history occurred in 2005 with the purchase of \$700 million worth of properties in the San Juan Basin in Colorado. Samson also entered into a partnership with Noble Energy in the Gulf of Mexico. In 2006 and 2007, Samson Canada was sold as well as interests in Venezuela and South Texas. In 2008, an acquisition in the Bakken of North Dakota made Samson one of the larger operators in the play.

In 2010, following the British Petroleum operated Macondo explosion, executive order

banned drilling for one year, impacting three wells in which Samson was a working interest owner with Chevron and Noble Energy as operators. During this time, however, Samson acquired the Hornbuckle and Spearhead Ranch fields in the Powder River Basin, adding wells and leasehold to start a significant new horizontal oil play for the company.

In the fall of 2011, Samson entered into exclusive negotiations with KKR who eventually purchased the bulk of the Company while the Schustermans retained its Gulf Coast and Offshore divisions.

Throughout its landmark history, Samson strove to serve as an exemplary corporate citizen in every aspect of its business, including ethical, economic, legal, and practical obligations to the lives the company affects on a daily basis. Whether it involved corporate policies, environmental protection, operational safety, or community involvement, Samson was strongly committed to a responsible stewardship and sought to continuously improve the communities where its employees lived and worked through volunteer activities and corporate charitable giving. Some of those community events and charitable organizations have included the United Way, Habitat for Humanity, Juvenile Diabetes Research Foundation, Big Brothers and Sisters, Meals on Wheels, American Red Cross, and the American Cancer Society Relay for Life. In 2011 the company raised nearly \$200,000 from employee donations for the United Way annual fundraiser with a matching donation from the company. They also partnered with the Houston Oilfield Helping Hands to form the Oklahoma Chapter, sponsoring the inaugural fundraising golf tournament.

Built upon Charles Schusterman's devotion to integrity, innovation, and ingenuity, Samson's basic formula and business philosophy was proven by the test of time and remained unshakable throughout its existence. The company prided itself on the philosophy that teamwork, collaboration and professionalism typify the Samson corporate culture as does an emphasis on maintaining a balance between work, family, and the community.



THE CANTRELL FAMILY



operation from OBEC and Bob formed Royal Drilling, Inc. By 1978 all Cantrells had their own company.

Mike grew OBEC into an oil and gas production company. Bob and Pete continue to grow their production while staying in the drilling business. All three, Mike, Bob and Pete, still run their own companies today, which are based in Ada, Oklahoma. Now Mike's son Blake founded and runs Cantrell Energy Corporation and Bob's son Kevin has Grayson Investments, LLC, and is a cofounder and president of True Energy Services, LLC.

For four generations, the Cantrell family and the oil and gas industry in Southern Oklahoma have been intertwined. Mike says, "Oil not only feeds my family, oil is my family."



Left: Left to right, Bill G. "Pete" Cantrell and J. G. "Big Pete" Cantrell.

Below: Robert Royal "Bob" Cantrell, Bill G. "Pete" Cantrell, and Steven Michael "Mike" Cantrell.

In 1899 young James Graydon Cantrell came from Arkansas to Ada in Oklahoma Indian Territory with his folks in a covered wagon. Like most, the Cantrell family engaged in farming. In his mid-twenties, J. G. "Big Pete" Cantrell left the cotton fields for the oil fields. This career change has now spawned four generations of oil and gas entrepreneurs. Big Pete worked his way through the oil fields as a roughneck, driller and tool pusher following oil booms in Oklahoma, Texas, Kansas and Illinois. Four out of his five sons followed him to the oil patch. At one time, they all worked together on one crew. In 1950, Big Pete moved back to Ada and with sons, Bill G. "Pete" and Jeff, started Cantrell Drilling.

Like most in the oil business, times were good and bad. In the late 1950s, Mike's dad, Bill G. "Pete" Cantrell, moved the family into oil and gas production. Mike and his brother Bob and grew up working with their dad on the drilling rig and on the wells.

In 1975, Bob and Mike, at dad's insistence, bought the partners and, eventually, Pete out of the Oklahoma Basic Economy Corporation (OBEC), a company started by Pete.

A few short years later, Mike and Bob, following the example of individual independence from Pete, spun out the drilling



KOBY OIL Co., LLC



Above: Larry Hays.



The very DNA of Koby Oil Co., LLC, and its founder Larry Hays is rooted in the history of oil in Oklahoma. Born and raised among the oil fields of Seminole in the 1950s, Larry graduated from high school in Seminole before attending East Central University in Ada. Though he served as the assistant golf pro at the historic Oklahoma City Golf and Country Club from 1971 to 1974, the oil industry ran deep within his heritage and slowly but surely drew him home.

That heritage originated from both sides of his family tree. The Hays family first established themselves in Seminole in 1925 and began to build a thriving business in the construction of oilfield camps and houses that were daily growing across the Oklahoma landscape. When a local oil site superintendent came to his paternal grandfather's, Noble W. Hays, brother J. L., he asked if they could move several old camp houses for him. They agreed and the event set the family on a new course in the oil industry in Oklahoma. They continued transporting houses and oil camps, rigs, tanks and equipment until 1970, when Larry's father, Noble K. Hays, took over the business and continued the work until 1995.

In 1926, Larry's maternal grandfather, Newt Meeks, went to work for the Magnolia Oil Company in the booming Seminole oilfields and would retire nearly forty years later for Mobil Oil. When Larry was just a child, Newt often took his impressionable young grandson with him to check pumping units and gauging tanks at sites all across the state. Larry remembers, "Between those times in the field with both my father and my grandfather, I knew that this

was the life for me, even at such a young age. I couldn't get away from it if I wanted to."

Larry returned to work for his father in Seminole in the mid-1970s before accepting a position with Sun Oil Company, where he worked as a roustabout, lease operator, engineering tech, and relief production foreman from 1976 to 1980. He then worked for Earth Energy in Stillwater as a production and drilling foreman until 1985, when he decided to buy one oil well in Seminole County and one truck and formed Koby Oil.

Today Larry remains the president of Koby Oil Co., which includes 200 oil and gas wells; Koby Oilfield Service, which includes trucks to move oilfield equipment, 7 well service rigs to service oil wells, water hauling trucks, pressure trucks, frac tanks; Koby Oil Tools which includes downhole tools, reverse circulators and power swivels. Also, Larry owns AEI Corp.-Okla., in Oklahoma City, which owns the rights to the Fairbanks-Morse ignition line.

With eighty employees and a thriving business, he and his family make their home in Stillwater and have offices in Cushing and Seminole. Koby Oil, whose namesake is Larry and his wife Carolyn's youngest daughter Koby, was named among the top hundred oil and gas producers in Oklahoma in 2007.

The Hays family are longtime supporters of the Oklahoma State University athletic program and the company is involved in a variety of community and charitable organizations. Larry is a member of the Stillwater Airport Board. His son Jason is a graduate of the Kansas City Art Institute and is a commercial artist in Nebraska, and his daughter Jennifer is a graduate of the University of Nebraska and serves as the vice president of Koby Oil and runs the company's accounting department in Oklahoma City.





UNIT CORPORATION



Unit Corporation is a diversified energy company that engages in the exploration for, and production of, oil and natural gas, the acquisition of producing oil and natural gas properties, the contract drilling of onshore oil and natural gas wells, and the gathering and processing of natural gas. The company is approaching its fiftieth year in business.

In 1963, King Kirchner and his financial backer, Don Bodard, purchased three drilling rigs from Woolaroc Oil Company and formed Unit Drilling Company. Unit began with three office employees and thirty-seven field

people. The company grew quickly during the first few years and by the late seventies, Unit began to develop a geological, land, and engineering staff to explore and drill for oil and natural gas.

In 1979, Unit made its shares available to the public and changed its name to Unit Drilling and Exploration Company to describe its operations more accurately. Its stock began trading over the counter under the symbol UDE. In 1981, Unit moved from trading over the counter to trading on the New York Stock Exchange. In 1986, Unit

Corporation was formed and became the parent company of Unit Drilling and Exploration Company, replacing it on the New York Stock Exchange. Unit Corporation now trades under the symbol UNT.

In early 1988, as a result of its diversifying business activity, Unit reorganized its business operation resulting in its oil and natural gas exploration operations being carried out by its wholly owned subsidiary, Unit Petroleum Company and its contract drilling service being conducted by its wholly owned subsidiary, Unit Drilling Company.

Over the next two decades, Unit Corporation expanded its operations to the Rocky Mountain and Gulf Coast Basins, while building its core operations in the Mid-Continent region.



Above: A pumpjack, 2010.

Below: Superior Pipeline plant.

Unit's entrance into the midstream business began with the acquisition of its third major subsidiary, Superior Pipeline Company, which occurred in 2004. Superior Pipeline is a company engaged primarily in the gathering, processing and treating of natural gas. The company currently has 3 natural gas treatment plants, 10 natural gas processing plants, 35 active gathering systems, and 934 miles of pipeline.



Today, Unit is one of the largest land drilling contractors in the United States. The company operates more than 8,600 wells and has a reserve base of 116.0 MMBOE, primarily in the Anadarko and Arkoma Basins with reserves that are eighty-one percent proved developed. Unit's focus has transitioned over the past few years to mainly oil and liquids rich gas, which it believes provide the greatest opportunity for stable growth.

Future Unit Corporation strategies include maximizing the value of Unit Drilling Company by improving market share and rig utilization while developing new markets in addition to increasing Unit Petroleum Company's reserve base by more than 150 percent of annual production with costs meeting or exceeding economic parameters. Its strategy includes growing Superior Pipeline through the construction of grass roots projects and maintaining a conservative debt position while enhancing financial strength.

This industry is very volatile, but Unit has survived due to two factors: the people who, over the years, have done their part to build Unit's operations, and Unit's unique diversified operations. As a company with

operations in three segments of the industry, Unit has been able to grow as each segment has complemented each other and maintained steady growth even throughout the industry downturns.

Unit's operations are principally located in the Mid-Continent region, including the Anadarko, Arkoma, Permian, Rocky Mountains, and Gulf Coast Basins. Principle corporate offices are located in Tulsa, Oklahoma, with regional offices in Oklahoma City and Houston, Texas.

For more information about the company, visit them online at www.unitcorp.com.



Left: Rig hands, 2010.

Below: Unit Rig #201.



SULLIVAN AND COMPANY, LLC



Right: Robert J. "Spike" Sullivan and son Bob standing in front of a large Grady County compressor. Spike is the one eating the apple.

Below: The only remnant of the original Carter Nine encampment in Osage County. It was here that Spike began his career in 1932; Bob is now drilling wells using modern technology in this same very old producing province.



From the family's beginning in nineteenth century Ireland to their presence in the Oil Patch of twenty-first century America, the Sullivans have long been drilling holes in the ground in search of a better life.

Before coming "across the pond," the forefathers of present-day Sullivan and Company, LLC, were water well diggers in western Ireland. Eventually, Robert E. Sullivan began

working in the stateside version of the drilling industry when he applied for a field hand position at John D. Rockefeller's Standard Oil of New Jersey around 1900. The lure of double pay overseas led him to work in Romania, where the first of his three sons, Robert J. Sullivan was born.

Despite the lack of a formal education, Robert E. was promoted by the company several times and later transferred to Peru, where he was put in charge of the construction of a new refinery at Nigritos. After completion of the work, he left Standard Oil and moved his family to Coffeyville, Kansas. By this time, their teenage son Robert J. was spending the summers working on his father's cable tool drilling rig at historic sites in Oklahoma and Texas. Fulfilling their father's dream of providing a college education for his three sons, Robert J. and his two brothers graduated from the University of Notre Dame. Robert J., also known as "Spike" for his pugnacious disposition, added a second engineering degree from the University of Oklahoma and was hired by Standard of New Jersey in 1932. Over the next sixteen years, he was promoted through the ranks of Jersey's mid-continent

producing company, Carter Oil Company, before leaving to become an independent in 1948. Spike started his independent years as the manager of C. L. McMahon, Inc., a Tulsa-based independent whose founder had died. Spike managed the company for ten years for the benefit of the McMahon family. Through incentives, he personally prospered from successful exploration in Oklahoma, Texas, Illinois and Alberta.



When the company was sold in 1958, Spike and Ed Leroux, who had been the production manager for McMahon, combined their assets with funds from a handful of dedicated friends and pressed on. Since the early 1970s when Leroux suffered from failing health, operations continued as Sullivan and Company, with exploration activity in Oklahoma, Texas, Kansas, Illinois, Michigan, Ohio, and Alberta. Spike's son Robert J. Sullivan, Jr., joined Sullivan and Company in 1975 after receiving an undergraduate degree from Notre Dame, an MBA, and working five years for The Williams Companies. His first day of work involved reporting to his father, Spike, and his father-in-law, Bill Phillips, who was a lifelong friend of Spike from the Depression days between 1932 and 1938 when they both lived in the Carter Oil Company field encampments of Little Chief and Carter Nine in Osage County, Oklahoma.

Since 1975, Sullivan and Company has successfully navigated the often volatile swings of Oil Patch fortunes and shown steady growth. In the late 1980s, Bob, Jr., started Lumen Energy, a mid-stream natural gas company, which was sold to the Southern Ute Indian Tribe in 2004 after establishing and growing sixteen gathering systems in Oklahoma and Kansas.

Since the mid-1990s, Sullivan and Company has pursued new reserves in Texas and Oklahoma, including a significant project in Osage County, which ironically is located not far from the Little Chief and Carter Nine encampments Spike and Bill Phillips lived in during the Depression. Subsurface geology, 3-D seismic, and modern completion and production techniques are Sullivan's main finding and development tools. In 2007, William O'Connor Sullivan, one of Bob, Jr.'s six children, joined Sullivan and Company after undergraduate and MBA degrees from Notre Dame and two years with a Chicago bank, continuing the chain of Sullivan family Oklahoma Oil Patch Irishmen who cannot seem to stop drilling holes in the ground in search of a better life. It has been over 150 years since the Sullivans spudded their first water well in Ireland and as Bob says, "We hope our drilling never stops providing that better life that has so blessed our clan."



Left: Bob Sullivan and his son Bill, stand in front of an Osage pumping unit.

Below: Bob Sullivan stands with Osage Tribe Chief Charles Tillman in front of what was left of the famous Million Dollar Elm Tree in Osage County on the day in 1999 when Bob delivered a check acquiring a lease concession from the Osage Tribe that currently covers 150 square miles where Sullivan and Company LLC is operating.



HEWITT MINERAL CORPORATION

Hewitt Mineral Corporation represents a continuation of the vision of several local, early-day pioneers in the oil and gas industry in southern Oklahoma. Hewitt came into existence like many other companies of its day by initially starting out with mineral acres held in a trust.

In Carter County, Oklahoma, there were two major oil fields: Healdton Field and the Hewitt Field. William J. Millard was one of the first to map the Hewitt Field and the anticline which folded downward along the sides of a buried hill.

On June 5, 1919, the first discovery well of the Hewitt Field, the No. 1 A. E. Denney, was completed at a depth of 2,134 feet with an initial production of 410 barrels of oil a day. This prompted the investment of five prominent businessmen from the town of

Ardmore—Simon Westheimer, David Daube, L. S. Dolman, W. M. Gwyn, and Kirk Dyer—to begin buying mineral interests in and around the field and form the Hewitt Mineral



Trust on July 14, 1919. Many wells were operated at that time by the Trust and leases were also given to other trusts, “wildcatters,” and oil and gas companies moving into the area. One of the biggest discoveries, the No. 33 Noble, recorded 12,800 barrels a day at its peak.

At one point there were 160 geologists and a good half-dozen major recognizable oil and gas companies in the area. In 1920, Earl Haliburton came in and cemented a few of the wild wells in Hewitt field and helped stabilize production. The Hewitt Field had expanded into 540 wells producing 43,000 barrels of oil daily.

In 1928, Hewitt Mineral Trust decided to incorporate, with each investor having ten shares with the total capital stock of the company being \$150,000. Westheimer was named the first president of Hewitt Mineral Corporation, Dyer was vice president and Dolman was treasurer.



Above: Simon Westheimer, first president of Hewitt Mineral Corporation, 1928.

Right: One of the early day wells drilled in Carter County, Oklahoma, in February 1921.

At this time, the Hewitt field had over 800 productive wells spread across 3,000 acres with an output of over 60 million barrels, which ranked Hewitt Field as the seventieth-largest producing field in America. From its discovery in 1919 to the end of the first five decades of the twentieth century, the Hewitt Field had a total cumulative output of 110 million barrels of oil. During this time the company began to grow and acquire minerals and non-operating working interests in southern Oklahoma and enjoyed modest success under the direction of selected oil and gas operators and developers.



Hewitt Mineral Corporation, which used to operate in the early days, does not operate any properties nor does it engage in drilling operations, relying instead on independent contractors or operating partners. Through most of the twentieth century, its properties—mostly in Anadarko Basin—provided most of the company's oil and gas production. Hewitt has been fortunate enough to grow and expand its reserves through acquisitions, and partner with small independent companies to drill and produce in and around Oklahoma. Through these partnerships, Hewitt participated with a working interest inside and outside the state of Oklahoma.

Today, Hewitt Mineral Corporation maintains an inventory of leasehold interests and minerals primarily within the states of Oklahoma, Texas, Louisiana, and Illinois. As Hewitt has grown throughout the years, its shares of stock have been divided several times over as generations increase. In 1999 the stockholders agreed to amend the certificate of incorporation for a ten-for-one stock split.



During the latter years of the twentieth century, Hewitt hired its first full-time geologist to produce and evaluate oil and gas prospects and benefited greatly from the addition of James B. Dolman as president up until his death in 2007, at which time the equity in Hewitt grew over four hundred percent. The corporate officers and directors still monitor several of the early day leases acquired during the years that contributed to the company's early net income in addition to leases acquired in Oklahoma and various other states. New innovations in exploration have further increased the value of the company and its oil and gas holdings.

The twenty-first century brings great opportunity for growth for Hewitt and its current president, William E. Dolman, as Hewitt is positioned to benefit from high energy prices and the steady increase of demand around the world.



Left: L. S. Dolman maintained the activity and livelihood out of his office for more than fifty years.

Right: James B. Dolman, president, 1992-2007.

TEL OIL & GAS CORP.



C. D. Long.

TEL Oil & Gas Corp. was organized in 1962 to acquire producing gas wells in the Hugoton Field and create shareholder wealth through acquisition and discovery of long-term quality reserves.

However, the company roots trace back to H. W. Long and the 1930s. As the owner of Long's Insurance Agency, Long was familiar with most of the residents of Texas County. He worked for several years as their leasing agent in the area and helped Cities Service Co. and Harrington Hagy & Marsh acquire leases and establish operations in the Hugoton.

When Long's son, C. D. Long, and son-in-law, H. K. Elrod, returned from duty during World War II, they began doing lease work and acquiring mineral in the Oklahoma Panhandle and surrounding area.

According to one story, the men called on a landowner in Southeast Colorado in an effort to lease some minerals for an exploration company in Oklahoma City. The prospect refused to lease but said he was willing to sell his land and minerals, explaining that he was moving to Las Vegas to open a casino. Since

he was looking for partners, he asked Long and Elrod to invest. They left thinking for sure the man had lost his mind. As it turns out, the man was Benny Binion and he eventually opened the Horseshoe Casino.

As the founders built up some capital, they began to think about owning and operating their own wells. TEL was formed and eventually properties were acquired from companies such as Southwest Public Service Company and Ellison, Portman & Kessler. Back then, gas prices were a few cents per MCF. As the wells were purchased, regulatory work was done to increase these prices. All of the early years were spent in the Hugoton Field and many

of those properties still produce today.

An early partner, Grady Thompson, sold his interest to Elrod and Long after the company was founded. Elrod passed away in 2003 and Long passed away in 2011.

In more recent years, TEL Oil & Gas has been involved in development of deeper horizons in the Hugoton Field area, and the re-drilling of a number of Hugoton wells. The knowledge and encouragement of J. B. Herrmann of Amarillo was a key to this redevelopment effort.

In 2004 the company began a partnership with Beta Venture Capital in Dallas, Texas, to acquire leases and develop properties in




the Woodford Shale formation in Southeast Oklahoma. To date, the company has been involved in the drilling of approximately three hundred horizontal Woodford wells.

New offices were opened at 500 North Broadway in the old OPUBCO Building in downtown Oklahoma City to handle the new growth area. Existing offices for TEL Oil & Gas are located at 501 North Ellison Street in Guymon and 500 North Broadway in Oklahoma City. The company is operated by President Steve Long and his son, Jake.

Currently, the company is actively pursuing other new resource plays in Oklahoma. The company and its employees are actively involved in a number of local civic and charitable affairs, including Pioneer Days, Relay for Life, Circle of Friends, Sunflower Festival, Kids, Inc., and various others.



 Left: Steve and Jake Long.

Below: A well in Texas County.



GHK COMPANIES

Robert A. Hefner III, founder and owner of GHK Companies, an Oklahoma City-based natural gas and oil exploration and production firm, is a third-generation Oklahoma energy man, as well as a third-generation politically active businessman.

Hefner was born in 1935 in Washington, D.C. He graduated from the University of Oklahoma in 1957 and in 1959 formed the Glover-Hefner-Kennedy Company, which became known as The GHK Company and has focused the majority of its now fifty-plus-year history on the development of natural gas rather than oil.

Hefner, who is a geologist and geophysicist and was a founder in the 1980s of the University of Oklahoma Energy Center, has often been referred to as the “Father of Deep Natural Gas” and has been considered one of the world’s premier natural gas wildcaters. In the 1950s and 1960s most experts thought there could be no commercial natural gas in the deep sector of the Anadarko Basin in western Oklahoma. Hefner defied that conventional wisdom and GHK’s #1 Green well, completed in 1969 in Beckham County, Oklahoma, became the first well to establish the prolific

gas-producing capability of the Deep Anadarko Basin, thereby opening the province to billions of dollars of subsequent deep gas development. From the late 1960s to the early 1980s, Hefner drilled many of the world’s deepest and highest pressure natural gas wells and achieved major advancements in natural gas drilling, completion, and production technology. In 1980, Hefner and GHK entered into the then largest on-shore domestic joint venture in the history of the industry with Mobil Oil Corp., resulting in GHK/Mobil interests in over 224 deep wells in Oklahoma’s Anadarko Basin and a total expenditure by all participants in excess of several billion in today’s dollars.

In the 1990s, Hefner and GHK’s technical team discovered the Potato Hills field in southeastern Oklahoma. GHK was the sole developer of the field which, at the time, was one of the larger onshore natural gas discoveries in North America in recent decades. Historically, GHK operated about ten percent of Oklahoma’s best producing natural gas wells. Today, Hefner and GHK remain active in the Anadarko Basin and have interests in two large, rapidly developing horizontal drilling projects in Roger Mills County in western Oklahoma.



Robert A. Hefner III at a GHK well site in western Oklahoma, 2007.



With the onset of the nation's energy crisis in the early 1970s, Hefner became a leading spokesman for the role of natural gas in America's energy policy and testified eighteen times before Congressional committees in the 1970s and 1980s. He was one of the most influential individuals in the country in changing Federal policy relating to natural gas pricing and deregulation. He was chairman of the Oklahoma Energy Advisory Council, founder and chairman of the Independent Gas Producers Committee, and served as an ambassador-at-large for the State of Oklahoma. He recently accepted an invitation to become a "creativity ambassador" for Oklahoma.

Hefner has been an avid collector of items he feels representative of both the beauty and spirit of freedom and enterprise in mankind's nature. As the Berlin Wall was coming down in 1989, which he believed was an historic symbol of the power of personal freedom, he was able to purchase sixteen feet, which today is on display at Bedok Reservoir in Singapore. Additionally, in the mid-1980s Hefner began collecting contemporary Chinese oil paintings and today he and his wife MeiLi own and continue to develop The Hefner Collection, the single most important private collection representing art of the historic and artistically explosive period following China's Cultural Revolution. The Hefners have also established the Robert and MeiLi Hefner Foundation, supporting the "Hefner Initiative" program, which funds trips to China and Singapore for outstanding students from selected high schools.

Hefner was inducted into the Oklahoma Hall of Fame in 2010, having been preceded

by his father, Robert A. Hefner, Jr., (inducted in 1973) and his grandfather, Judge Robert A. Hefner (inducted in 1949). Hefner continues his active management role at GHK and serves on the International Council at Harvard's Belfer Center for Science and International Affairs and Singapore's International Advisory Panel on Energy, is a director of the American Clean Skies Foundation, a fellow of the Royal Geographical Society in London, a fellow national in The Explorers Club, and founding director and president of the Bradshaw Foundation (www.bradshawfoundation.com), which fosters exploration and preservation of ancient rock and cave paintings around the world and research on the early human migrations and population of the earth. Hefner has previously served on many additional boards and councils, was a former Advisory Board member of the International Institute for Applied Systems Analysis in Austria, and is chairman emeritus of Ballet Oklahoma, having won, in 1981, the *Forbes* "Business in the Arts" award for long-term commitment and contributions to Ballet Oklahoma.

Hefner's ground-breaking book *The Grand Energy Transition* (www.The-GET.com) was published in 2009 by John Wiley & Sons. The book describes civilization's ongoing energy transition into the Age of Energy Gases and shows how the expanded use of gaseous fuels can revive economic prosperity, create jobs and enhance national security. A documentary DVD *The Grand Energy Transition* was released in 2012.

Hefner has three children—Robert IV, Catherine, and Charles—seven grandchildren, and two great-grandchildren, all Oklahomans!



MeiLi and Robert A. Hefner III at a GHK well site in western Oklahoma, 2004.

C. E. HARMON OIL, INC.

With a name like C. E. Harmon Oil, Inc., you would suppose this oil company is the product of one man's desire to make a name for himself—as a man and as a company. And that is just what Charles Harmon, the founder of C. E. Harmon Oil, Inc., has done. In the grand tradition of Oklahoma oilmen like Frank Phillips of Conoco Phillips that created a company molded in the image of the ideals of the man that made it, Charles started C. E. Harmon Oil, Inc. Both men built reputations for honesty, working long hours and applying the unspoken golden rule, “Do unto others as you would have them do unto you.”

Charles received his B.S. in petroleum engineering from the University of Oklahoma in 1959. Finding the job market tough, he went back to OU for another year and earned a B.S. in geological engineering in 1960. With both degrees in hand, he started work for Sunray DX Oil Company in 1960—as a landman. Charles soon became a geologist with the company and, in 1961, became a junior engineer. While climbing the engineering ladder, Charles and his wife Evelyn were transferred to various towns, gaining experience in whatever the company asked for. The year 1970 marked the fourth time that Charles and Evelyn moved to

Tulsa for Sun Oil. His position in the company, doing evaluations and acquisitions, would finally let him and his family stay in one place.

After sixteen years of working for Sun Oil, Charles joined Williams Exploration Company in Tulsa in 1976. It was during his work for Williams that Charles began entertaining the idea that he wanted to be his own boss. So, in August 1977, he told Evelyn that he had quit his job at Williams and was going to be a petroleum consultant. With three boys at home and Charles being the only breadwinner, Evelyn gulped “yes” and told him she would help him as needed. Evelyn started doing the accounting and to this day, is still the chief accountant.

After a few years of consulting, and the ups and downs that come with the oil business, Charles decided to again change gears. On April 2, 1980, he and his family would then embark on what would turn out to be the crowning achievement of an already great petroleum career, and one that would eventually employ the whole family—the creation of C. E. Harmon Oil, Inc.

C. E. Harmon Oil, Inc., began with acquiring small royalty and overriding royalty interests, as well as working interests in large West Texas fields. In 1981 the company acquired a twenty-five percent working interest and operations in a five well lease in Osage County, Oklahoma. The company then entered the Sooner Trend in Kingfisher County with some leases just a few years later. But it was the direction the company took with the first lease purchased in Stephens County, Oklahoma, in 1985, that changed the company from being a small independent, to what many would call a medium-size independent today.



Above: Charles E. Harmon.



Ever since that first lease acquisition in Stephens County, Charles decided that he, like many oilmen before him, would build his company primarily in the Sho-Vel-Tum Field of Oklahoma. Consisting of parts of Stephens, Carter and Garvin Counties, the Sho-Vel-Tum Field was where many major oil companies had their beginnings, made money and left. C. E. Harmon Oil, Inc., would make money from acquiring existing oil and gas properties there, most being properties started by majors, but then stay and buy more. Charles was once told by an old geologist that the only way to get properties in Stephens or Carter Counties was to “marry it or inherit it.” Charles told the old gentleman that, “I didn’t know about any of that, as I just went out and bought my properties.”

In 1990 the company began operations in the old Amerada Company’s West Velma Field area. Just a year later, C. E. Harmon Oil, Inc., acquired and assumed operations of about two dozen wells in the Texas Panhandle. In 1996 the company began operating Conoco’s Southern Oklahoma package of properties in Carter County. From the early days of the company, the strategy of C. E. Harmon Oil, Inc., has been to primarily enhance old existing properties and drill sparingly. This strategy has been successful. Through operating for others and buying interests and properties, C. E. Harmon Oil, Inc., was written up in the March 18-24, 2005 issue of the *Tulsa Business Journal* as being the ninth-largest oil producer in Oklahoma.

From the middle 1990s through the early years of the twenty-first century, the three sons of Charles and Evelyn gradually joined the business full-time. Bob, the oldest brother, joined the company in 1994 and is the company geologist. Steve, the middle brother, had a PhD in chemical engineering and had just completed his first year of petroleum engineering at the University of Tulsa, when in July 2005, he passed away unexpectedly. Brian, the youngest brother, joined the company in 2000 and is in revenue and administration, along with his wife, Christina. In 1996, Haley Brewer, who is more like family than an employee, joined the company. Haley does accounting for the company. Gregg

Adkins, an expert landman with many years in the business, came to work full-time with C. E. Harmon Oil, Inc. in August 2001.

In an independent company, job duties are often made up of what is expected every month, whatever did not get done yesterday, and what emergencies are brought on by today’s phone calls, mail, e-mail and so on. From early and simple beginnings in Oklahoma, C. E. Harmon Oil, Inc. is now firmly established with the bulk of its properties located in the southern Oklahoma counties of Carter and Stephens. Total wells in Oklahoma number almost 200 and range in depth from shallow Permian wells, from 600 to 800 feet in depth, to deep Springer wells that are around 10,000 feet deep.

The company continues to grow and expand. No oil and gas company can exist for long without trustworthy and hardworking people in the field. C. E. Harmon Oil, Inc. is very blessed to have many excellent contract pumpers, consultants, and service companies that either work for or with the company. The company and several vendors have cookouts throughout the year in the old Conoco office in Carter County. These cookouts started around ten years ago and are a source of good times and goodwill for all. What started off as a cookout for a few dozen people has now spread through word of mouth, to include around eighty or more people at each event. Charles, his family, employees, and many contract workers all get together—as oilmen have probably done for over a hundred years in Oklahoma—to eat and socialize. With luck, good geology, the desire for America to drill in her own backyard, and by reigning in the regulatory excesses that plague our country’s businesses, perhaps there will be many more such cookouts in the second hundred years.



Evelyn and Charles Harmon.



DEVON ENERGY



Top: Executive Chairman and Co-Founder of Devon Energy Larry Nichols.

Above: President and Chief Executive Officer John Richels.

Right: Jackfish 2 project, northern Alberta, Canada.

Since its beginning in Oklahoma City as a small oil company founded by John Nichols and his son, Larry, Devon Energy Corporation has been a pioneer in the oil and natural gas industry. Today, Devon is a leading independent energy company engaged in the exploration, development and production of oil and natural gas in North America. The company is ranked among *Fortune* magazine's five hundred largest corporations in America.

The company also owns natural gas gathering system and treatment facilities in both the United States and Canada, making Devon one of North America's largest processors of natural gas liquids.

Devon has led the way with innovation in the commercial development of natural gas from shale and coal formations. The company also is a proven leader in using steam to produce oil from the Canadian oil sands. With a production mix of about 60 percent natural gas and 40 percent oil and natural gas liquids such as propane, butane and ethane, Devon's onshore North American asset base accounts for 240 million equivalent barrels of annual production. Estimated proved reserves topped 3 billion barrels of oil equivalent in 2011, an all-time high.

John, known for his entrepreneurial spirit, in 1950 created the first public oil and gas drilling fund registered with the U.S.

Securities and Exchange Commission. His success with this new approach to financing oil and gas exploration positioned him to incorporate Devon in 1971 with Larry. Together, they grew the company through the 1970s and 1980s with funding from previously untapped sources of investment capital in Europe. They took Devon public in 1988 and today, the company still trades on the New York Stock Exchange under the ticker symbol DVN.

Devon has grown through a series of multi-billion dollar acquisitions. In the 1990s, Devon acquired PennzEnergy and Santa Fe Snyder, which established Devon's international presence. The acquisition of Anderson Exploration in 2001 established Devon as the third-largest independent gas producer in Canada.

Devon continued its phenomenal growth in the early 2000s with additional multibillion dollar acquisitions. The 2002 purchase of Mitchell Energy added the prolific Barnett Shale in north Texas to Devon's portfolio. In a \$5.3 billion merger, Devon acquired Ocean Energy in 2003, establishing the company at that time as the largest U.S.-based independent oil and gas producer.

In 2009, Devon made a strategic decision to sell all of its international assets to reposition Devon as a purely North American onshore company. That process was completed in



2010, setting the stage for Devon's best-ever financial performance in 2011.

Each year Devon continues to drill thousands of wells in existing fields as well as exploring for new fields. Operations are concentrated in key geographical areas, which include the Permian Basin in Texas and New Mexico, the Anadarko Basin in Oklahoma, the Fort Worth Basin in north Texas, and the Western Canadian Sedimentary Basin.

Devon's Canadian oil and natural gas fields account for more than a quarter of the company's production. Exploration and development activities stretch from southern Alberta north to the Canadian Arctic. The company's land holdings are among the largest in Canada, encompassing about 7 million net undeveloped acres. Devon is the only U.S.-based independent energy company with an active oil sands project in Canada, where reserves are second only to Saudi Arabia in size.

Operations in the Permian Basin provide the company with both natural gas and oil production. The Permian was the source of some of the earliest oil and gas discoveries in the United States, and Devon holds nearly one million acres under lease. Today, the company is applying horizontal drilling and hydraulic fracturing technology to tap formations rich in oil and natural gas liquids.

Devon's Barnett Shale properties near Fort Worth are at the heart of the company's Mid-Continent portfolio. The Barnett Shale is a rock formation rich in natural gas, but too dense to allow free flow to the well bore. Since 2002, the company has successfully combined horizontal drilling and fracture stimulation techniques to release gas by cracking the shale with high water pressure. Today, Devon continues to introduce technology and new innovations, further enhancing production in what has become one of North America's most prolific fields.

The company is growing its presence in North America through a series of new ventures across the U.S. and Canada. Recent



exploration efforts have included the Tuscaloosa Marine Shale in southern Louisiana, the Niobrara Shale in Wyoming, the Mississippian Lime in Oklahoma, the Ohio Utica Shale, and the A1 Carbonate in the Michigan Basin. With a sharp focus on creating value for its shareholders, Devon has grown through property acquisition, drilling, innovation and by maintaining its financial strength and flexibility over time. Devon's double-digit oil production growth distinguishes it from its competitors.

An important component of Devon's success is the company's ongoing support of the communities where it operates; where the people of Devon live and work. The effort goes beyond the funding of nonprofit institutions, projects and agencies. Volunteerism and community service extend from the employees all the way to the executive level. The company

also demonstrates a strong commitment to environmental stewardship, and is continually working with states and regulatory agencies to promote clean air and water, a healthy landscape, and habitat for wildlife.

Still based in Oklahoma City, Devon is proud to claim its Oklahoma roots. Devon has remained steadfast in Oklahoma, growing from a modest start-up company to become one of the largest U.S.-based independent oil and gas producers.

For more information, please visit Devon online at www.devonenergy.com.



Above: Cana-Woodford Shale, northwest Oklahoma.

Below: Devon Energy employees lead a Petro Pros class presentation at Mark Twain Elementary School, Oklahoma City.



BROWN & BORELLI, INC.

Headquartered in Kingfisher, Oklahoma, Brown & Borelli, Inc., is a small independent oil and gas producing company, exploring for and producing oil and natural gas primarily in Oklahoma and other basins in the continental United States.

It began some forty years ago as Gerald “Gerry” E. Borelli had started drilling wells in the Sooner trend in 1966 and later joined F. W. “Pete” Brown in 1972 to form the partnership that was incorporated in 1974 as Brown & Borelli, Inc.

of 1973 and the price of oil was still only \$3.85/bbl. The completed well cost was \$120,000 and only that high because they lost circulation in the Mississippi for five days. The third well was drilled after the Embargo, six months later, and their completed well cost was \$350,000. Even after Brown & Borelli’s success, other companies continued to believe that fracking the Hunton would result in water production, allowing them to have nearly exclusive development of this field.



Above: Gerald E. Borelli.

Below: Pete Brown.



Gerry’s first success had originated with his first well—Johnson #1. Dick Lawson had recommended that Gerry not frac the Hunton because it would only make water; Gerry fracked it anyway and the well has continued to produce oil and gas since 1966. To date, this field has produced over 1MMBO and 10BCFG, all due to fracking. The second well drilled in the field was shortly after Gerry and Pete formed a partnership but before the formation of Brown & Borelli, Inc. Their timing coincided with the Arab Oil Embargo

Clearly a unique period in the history of the industry was unfolding at the time of the company’s founding in the early 1970s. The price of oil was \$3.85 per barrel and natural gas sold for around \$0.20 per MCF in 1972, but only a short time later the “Arab Oil Embargo” drove the price of oil to over \$10 per and natural gas followed. As the price of oil and natural gas increased, so did the cost of drilling new wells. Buying the equipment necessary for well-completing was becoming increasingly difficult, and the

men took a farmout from a company to drill a well in Kingfisher County. The well had to be drilled immediately due to expiring leases so, against Pete's better judgment, they started drilling without having purchased the casing needed to complete the job. After searching for over a week, Pete found some used five and a half casing that was purportedly tested and drifted.

They began the work on a bitterly cold January evening with the wind blowing thirty miles per hour. At about 2:00 a.m., the driller on the casing crew tapped on the window of the engineer's jeep and said he wanted them to come up on the floor to look at a joint of casing they were about to run in the hole. When the men walked up on the floor, a roughneck took a pencil and stuck it through the casing wall. Needless to say, Pete spent the rest of the night trying to find replacement casing while the casing crew pulled all the joints previously run in the hole. The necessary casing was finally found and purchased at three times the going rate.

In 1989, Brown & Borelli, Inc., drilled the first commercial horizontal oil well in Oklahoma in a high porosity, low permeability section of the Hunton Dolomite in Kingfisher County. Texaco had drilled an earlier dry hole and Pete's good friend Harold Hamm of Continental Resources drilled the first commercial horizontal gas well in the area.

When the price of oil dropped in 1993, Brown & Borelli could no longer justify drilling the low cost low return wells that had been their mainstay. Pete wanted to pursue higher risk ventures and Gerry did not, so Pete sold his half of the company to him in 1994.

In 2003, Gerry found out that he had terminal lung cancer and asked Pete to consider buying the company back. He did so along with Joseph Warren, Michael Price and their longtime engineering consultant, Steve Altman.

Today, Brown & Borelli operates about eighty-five wells and that number varies as they often develop an area to a point where they sell the project to focus on new activity. The company has non-operating working interests in over two hundred wells throughout Oklahoma. Besides the four partners, they

have a support staff of four and employ nine contract pumpers, while raising most of their capital required for exploration from outside sources, mainly other independents.




The company remains active in community and charitable programs through their participation and support of the local FFA program's livestock auction, and are involved in community activities as well as making numerous local and charitable and scholarship contributions.



Pete Brown and Steve Altman at Big 4.

PANTHER ENERGY COMPANY, LLC



 Above: Roy Grossman, left, and Berry Mullennix.

Opposite, bottom: A Panther well in Texas.

Based in downtown Tulsa, Oklahoma, Panther Energy Company specializes in grassroots horizontal exploration of unconventional zones, while also developing conventional reserves of both oil and gas.

The company's founders, Chief Operating Officer Roy Grossman and Chief Executive Officer Berry Mullennix met in the mid-1990s while Berry was reviving an old Bartlesville Waterflood near Ramona, Oklahoma. At the same time, Roy was developing prospects with other partners and the two eventually struck a partnership deal over a beer and formed Mannix Oil Company. Armed with a loan of \$200,000 from a friend/investor, Roy

and Berry acquired production in Oklahoma City, Edmond, and a Beggs Waterflood.

In 1998 the partners entered the Arkoma Basin with the idea of drilling the thin Hartshorne Coal seams in Hughes County horizontally. They pioneered the use of focused gamma tools to stay in zones that averaged only five feet. With the help of a \$40 million mezzanine facility, a bank loan, investors and a total of six types of financing over three years, the pair drilled dozens of horizontal wells and acquired over 35,000 acres.

In September 2001, only five days before the tragic events 9/11 unfolded, Mannix Oil Company was sold to Williams Companies of Tulsa for a total value of close to \$100 million, \$36 million net to Mannix.

In early 2002, Roy and Berry formed another company that soon became Cannon Energy Company, LLC. They looked for other coal bed methane (CBM) plays to apply their technical skills and began drilling in the Cherokee Basin of northeastern Oklahoma and southeastern Kansas. The company eventually raised equity capital from Kayne Anderson in Houston, Texas, in 2003 and added CBM assets in the Piceance Basin near Grand Junction, Colorado.

In 2004, Cannon Energy Company, LLC, partnered with Red Willow Production Company from Ignacio, Colorado, near Durango, and began a project in Lipscomb County, Texas, to explore the Atoka Shale. After shedding its CBM assets, the company began a horizontal drilling program in the Anadarko Basin.



In February 2005, Roy and Berry brought in the parent entity of Red Willow Production and the Southern Ute Indian Tribe (SUIT) Growth Fund and bought out the interests of Kayne Anderson to form Panther Energy Company, LLC.

Over the next few years, the company expanded its Anadarko play by 150,000 gross acres and drilled over 150 horizontal Cleveland, Marmaton, Cottage Grove, and Atoka wells. The company also expanded again into the Arkoma Basin, California, Montana, and North Dakota, focused upon expanding its crude oil assets.

In 2007, Panther again sold its Arkoma assets to Canaan Energy in Oklahoma City for an undisclosed sum. Since 2010, Panther also sold its California assets and exited the Bakken Play in North Dakota and Montana, selling to Brigham Exploration for \$39 million.

In June 2011 the company sold a forty-percent interest in its Anadarko Basin project to Linn Energy for \$220 million and continues this partnership today.

Today, Panther Energy Company remains focused in the Mid-Continent region and runs six to eight rigs with an annual drilling budget of \$300-350 million. The company has grown from 18 employees in 2005 to over 85 employees in 2012 and has opened a field yard and an office in Perryton, Texas. The company has also grown its production to almost 8,000 barrels of oil per day (BOPD) and over 30 million cubic feet of gas per day (MMCFD). The company also contributes to a variety of charitable organizations including the Iron Gate, Philbrook Museum of Art, Red Cross, and the United Way.

Panther Energy is led by a group of visionary leaders and employees including President and CEO Berry Mullennix; Senior Vice President and COO Roy Grossman; Treasurer and Chief Financial Officer Jim Flaherty; Vice President–Business Development and Land Jim Stone; Vice President–Geology Tom Owen; Vice President–Field Operations Howard Blankenship; and IT Director Jerry Mullennix.

Panther Energy Company is located in Tulsa at 15 East Fifth Street and online at www.pantherenergy.us.



AVALON EXPLORATION, INC.



This vision for Oklahoma's Avalon Exploration first began in 1983 when geologist John Wieczorek was serving as an exploration manager for Buttonwood Petroleum and decided to found Avalon Exploration, Inc. Randy Sullivan, also an employee of Buttonwood Petroleum at the time, joined John as the head of the fledgling company's land department.

It was a particularly unusual time to form an oil company as the historic oil "bust" had begun. Fortunately, Randy and John's perseverance prevailed and they would eventually welcome a variety of partners into their exploration deals.

John remembers the time well, "Randy and I would pump each other up and overlook the rejections. Our sales process was not very technical. We would open a telephone directory from a specific city and start setting up

appointments. Because of the depression within the industry, things like company Christmas parties had become nearly nonexistent. Though money was tight, we put on what felt like the only remaining holiday party in Tulsa. In our small offices the party often looked like a packed elevator."

Together, John and Randy soon discovered an exploration niche in southern Oklahoma. Through past experiences in the area and the acquisition of extensive regional seismic coverage, they began exploring for undeveloped fault blocks beneath existing production on the Cement Field.

The Cement Field had been discovered in the early 1900s and extensively developed in the 1940s and 1950s by major oil companies. By the mid-1980s its development was stagnant, but John was able to contact many of the retired geologists who had made the original discoveries to confirm his exploration ideas.

The land acquisition in the Cement Field was equally complicated, but Randy worked magic in obtaining a foothold in most sections and ultimately acquiring a farm-in from Amoco that granted them deep rights to the Springer formation and shallower rights to Avalon. From that moment on, Avalon Exploration took off.

In the mid-1990s, Avalon began drilling the Carter-Knox structure in southern Oklahoma. This resulted in a new zone



Above: The first Avalon charter aircraft, an Andva, lands west of Chechnya, Russia, in 1992.

Below: Sullivan and Wieczorek on location with their partner F. Howard Walsh, Jr., in 1987 at the Cement Field deepening discovery from 7.7 BCFG Deese sand.



discovery from the Morrow, five wells of which now average over 650,000 barrels of oil and 5.5 BCFG a piece.

By the late 1990s production from these two fields, gave Avalon Exploration, and its eleven employees the fourteenth position on the list of the Oklahoma Corporation Commission's largest gas producers in the state. Production from both fields was sold in 2001.

When natural gas prices dropped again in 1992, Avalon was netting as low as eighty-five cents a thousand cubic feet for one month's production. Randy and John agreed that if the plunge lasted much longer their company would be worth nothing. Soon, Randy and John partnered with an acquaintance and were able to develop several connections in Russia and took off eastward.

Unlike today's packed flights and senior stewardesses predominating the plane, in 1992 there were two passengers, Randy and John, and three young stewardesses. After arriving in Moscow it took a while for the men to get their feet on the ground and meet the kind of people they felt comfortable doing business with in the industry. Randy and John met with executives from GAZPROM, the country's former Gas Ministry and largest gas producer in the world. GAZPROM possessed 30 percent of the world's gas reserves and 400,000 employees. John says, "We didn't have quite that much gas, but we did have eight employees."

By December 1993, Avalon Exploration received the official Russian Registration number one for its oil joint venture with GAZPROM. Randy and John agreed upon a forty-nine percent interest, with GAZPROM at fifty-one percent, in the half billion to a billion barrel Orenburg Field in Orenburg, Russia, just north of Kazakhstan at the foot of the Ural Mountains. They also had agreed to a joint venture in a shale development registered as number two with GAZPROM, near Stavropol just north of the Caucasus Mountains and west of Chechnya.

From 1993 until 1997 the Russian horizontal drilling project in the Orenburg field was funded by Randy and John. In 1997 they took Avalon Oil, PLC, for the Russian project

public on the London Exchange and raised \$50 million to continue funding development. The business was sold in 2001. Looking back on the experience, the men agree the Russian venture was a truly fascinating experience for two adventurous Oklahoma boys.

In 2000, Avalon executed a joint venture agreement with Red River Energy and principal Bob Davis to develop the western portion of the largest Hunton oil and gas field in the state, the West Edmund Hunton Limestone Unit (WEHLU). Additional capital for funding the project was acquired through partnership with Bob Davis, Avalon's new vice president of finance, and joint venturing with Energy Trust's Alan Hsia and Patrick Swearingen and Energy Spectrum's Leland White. Together, the project was developed and sold in 2007 to Chesapeake Energy. Today, this field has produced over one hundred million barrels of oil and one trillion cubic feet of gas.

In 2006, continuing in its partnership with Energy Trust, Avalon geologist Joe Preece made a meaningful stratigraphic discovery in Woods County from sub-cropped members of the Mississippi limestone. It was developed to 20 to 30 percent of its potential capacity and in 2008 again sold to Chesapeake Energy.

Currently Avalon Exploration in partnership with Energy Trust has been developing a thirty-thousand-acre project east of Norman, Oklahoma, and exploring north central, northwest stratigraphic plays and enjoys being back home in structurally complex, but interesting, southern Oklahoma.



Wieczorek and Sullivan on the way to the office in Orenburg, Russia, in 1992 at the foot of the Urals, north of Kazakhstan.



THE QUINTIN LITTLE COMPANY, INC.



Born in Indian Territory in the village of Cliff, between present-day Kingston and Madill, Quintin Little joined a family rich in an Oklahoma heritage that traces its roots to the family's arrival in the area in 1864.

Quintin was raised with a deep love for his native state and began his business career as a cotton broker in the 1920s. Cotton was king at the time in southern Oklahoma with Ardmore being the largest inland cotton port of the world. By 1934, however, farmers across the Great Plains were weathering the devastating effects of the Dust Bowl. The severe drought that settled over the state proved cotton was no longer a viable source of income in southern Oklahoma and Quintin began buying and selling oil and gas leases and put together lease blocks across Texas and Oklahoma and as far away as New York, Mississippi, and North Dakota, amassing a large mineral holding, as well.

Quintin was instrumental and directly involved in discovering and developing the Cumberland, Madill, Tatums, and Apache Fields in Oklahoma and the Sherman and Big Mineral Fields in Grayson County, Texas, all of which still produce today.

Quintin established the company in Madill and later met Carrie Lou Scott, a recent graduate and Valedictorian at Madill High School who had come to work in the growing business. The couple married on March 29, 1940, and together moved the business from Madill to Ardmore in 1944. The family lived in Ardmore where Quintin was active in civic affairs.

In 1949, Quintin purchased the city's largest office building, the Little Building, at 10 West Main (now the Colston Building). In 1982 a new office building at 2007 North Commerce was completed.

Quintin was an active member of the Church of Christ, served as president of the Ardmore Chamber of Commerce in 1954 and was a three-term member of the University of Oklahoma board of regents.

In 1961, Quintin wanted his son, Jud, to have the best education possible. The elder Little, a twenty-one-year member of the University of Oklahoma board of regents turned to his close friend and Sooner football coach Bud Wilkinson for advice. Wilkinson, who had graduated from Kemper Military Academy in Minnesota, suggested the Culver Academy in Indiana, starting a lifetime relationship between the Littles and the college preparatory school.



Culver is one of the largest boarding schools in the United States, with 790 students, and the schools focuses its curriculum on leadership training. Incoming freshmen are given the choice of four areas of interest to focus on during their tenure at the school: infantry, artillery, band, and horsemanship. With Jud's love of horses already instilled, he naturally gravitated toward the horsemanship



Above: Quintin Little at Discovery Well in Cumberland, March 1940.

Below: Cumberland Field Discovery Well #1 Little, Marshall County, Oklahoma, March 1940.

program and the famed Black Horse Troop—one of the nation's elite horsemanship groups for high school students. As a member of the troop, Jud rode in Lyndon Johnson's 1965 presidential inauguration parade.



Jud also learned to play polo and became captain of the polo team and Lancer Platoon Mounted Drill Team, an honor unit comprised of the best horseman of the Black Horse Troop. His Culver education also led to success in the classroom and Jud received a bachelor's degree in economics from the prestigious Wharton School of Finance and Commerce at the University of Pennsylvania.

Jud's success at Culver and in the business world has made him a champion for his alma mater. Calling the school a "leadership factory," he is a past president of the Culver Legion, the school's alumni association, and is a current member of the school's board of trustees. He is also the premier financial supporter for the school's horsemanship program, while the state-of-the-art, indoor riding arena the school uses to house the Black Horse Troop bears Little's name.

With hopes of giving fellow Oklahomans the same educational opportunities he had, Jud founded the Jud Little Scholarship at Culver. One scholarship per year is set aside for a boy or girl from rural Oklahoma who is interested in horsemanship. The scholarship covers full tuition, room and board, uniforms,

horsemanship fees and books. Jud says they encourage those students from Oklahoma to come back to their home state to be significant leaders.

Today, the Quintin Little Company is owned and operated by Quintin and Carrie's son, Jud. He is also owner of the Jud Little Ranch, breeding championship horses on the Springer ranchland he bought as a thirty year old in 1976. The Jud Little Ranch has become the horse breeder of choice for champion barrel racers and rodeo ropers. Founded by Jud after he had traveled the world as a polo player, the ranch is now home to over 120 mares that have produced mounts regularly appearing at the National Finals Rodeo.



Jud's daughter, Mattie, carries on the family tradition by competing professionally on Jud Little Ranch barrel horses. Jud's son, Penn, graduated from Culver Military Academy in 2002 and also shares his father's love of horses. Jud married Benette Barrington, a competitor in the 2010 National Finals, on March 29, 2011.

For more information about the Little family and company, please visit them online at www.judlittleranch.com.



Top, left: Carrie Lou Scott Little.

Top, right: Jud Little and Frosty Feelins at Jud Little Ranch, Springer, Oklahoma.

LEWIS OIL CORPORATION



Frank Lewis.

Lewis Oil Corporation, first formed as Dirickson-Lewis Drilling Company in 1950, was created to safely and efficiently produce energy in the Mid-Continent area of the United States while providing exploration, production, and mineral management throughout the region.

Its original founder, Frank Lewis, began his career early in the industry as a roughneck for

Noble Drilling in 1936 and was promoted through the company. He worked in every major oil field throughout the Gulf Coast, Mid-Continent, and Rocky Mountain Basins, and settled in Tulsa, Oklahoma, with his young family in 1949 and for a brief period worked for Tulsa oilman L. B. Jackson.

In 1950, Frank became acquainted with Richard "Dick" Dirickson. Frank had the

hands-on knowledge that he had mastered while working at Noble Drilling, while Dick had the contacts and ability to raise capital. The men quickly became lifelong friends and formed Dirickson-Lewis Drilling Company.

After several years in operation, they formed Dirickson-Lewis Oil Company and began participating as operators of several wells. In 1955, Frank and Dick sold half of the drilling and oil company to George Coleman and Ed Lowery. This enabled the company more capital for drilling and exploration and, by the late 1950s, it had become one of the most active drillers and operators in the northeast area of Oklahoma.

Frank's wife Virginia, a native of Tulsa, was the daughter of Robert "Bob" and Lucyl Wilson. Wilson had originally worked as a landman for several prominent Tulsa oilmen in the area. During his professional life, Bob travelled extensively throughout the Midwest, leasing land and acquiring small tracts of

minerals that his family still manages today. Rick Lewis, his grandson, currently serves as trustee of the Lewis Family Mineral Trust of 1996.

In the early 1960s, after a severe downturn in the exploration business, Dirickson-Lewis Drilling Company decided to idle the drilling equipment. Frank's partners moved out of state, sold the drilling rigs, split up the production and left Frank as operator of the producing properties. He then became active in the banking and ranching business.

In 1985, Rick became the director of operations of his father's three remaining wells and formed the R. J. Lewis Oil Company. He drilled several successful wells in Eastern Oklahoma and purchased several producing leases from major oil companies. Rick currently has or has had operations in East Texas and in southwest and northeastern Oklahoma. In 1994, he incorporated the Lewis Oil Corporation to operate the leases he acquired.



Rick Lewis.

SANDRIDGE ENERGY, INC.

SandRidge Energy, Inc., is an energy company with focused oil drilling activities in the Texas Permian Basin and the Mid-Continent area of northern Oklahoma and southern Kansas. The company also has production in West Texas, the Cotton Valley Trend in East Texas, the Texas Gulf Coast, and the Gulf of Mexico. SandRidge is listed on the New York Stock Exchange, where its common stock is traded under the symbol "SD."

The company's Oklahoma roots formed in the summer of 2006 when Tom L. Ward became chairman and chief executive officer



of Riata Energy, Inc. Headquartered in Amarillo, Texas, at the time, Ward moved the company to Oklahoma City and renamed it SandRidge Energy, Inc. Upon acquiring the former Kerr-McGee building in downtown Oklahoma City one year later, SandRidge made downtown its home and embarked on a renovation of the building and redevelopment of the adjacent properties.

Originally focused on the exploration for and production of natural gas in the West Texas Overthrust (WTO) area of Pecos and Terrell Counties, SandRidge completed a successful transformation to a company that in 2011 derived most of its revenues from oil and dedicated essentially all of its drilling budget to oil. The decision to shift from natural gas to oil came in late 2008 in response to a significant decline in natural gas prices, which coincided with the downturn in the overall world economy.

Being among the first to switch from natural gas to oil allowed SandRidge to acquire significant acreage in proven oil producing areas at very low costs. In two separate transactions, SandRidge acquired properties in the Central Basin Platform of the Texas Permian Basin, providing the company with 149 million barrels of oil equivalent of proved reserves and 16,100 barrels of oil equivalent per day of production, 75 percent of which was oil. The company's total investment of less than \$1.9 billion in these transactions grew in value to nearly \$3.8 billion by February 2011, clearly demonstrating the company's ability to execute and enhance value in its core areas.

At the same time, SandRidge began expanding its presence in the horizontal Mississippian play of northern Oklahoma and southern Kansas. Like the Permian, the Mississippian formation is defined by shallow carbonate reservoirs and decades of production history, enabling the company to manage costs and develop dependable production profiles.

Drilling to shallow, permeable carbonate reservoirs, like those found in the Permian Basin and Mississippian formations, requires significantly less time and lower horsepower equipment than the deeper shale formations targeted by most of the industry. SandRidge

also owns more than thirty drilling rigs, providing the flexibility to move on and off site quickly. This translates into lower costs, which is key to the company's successful drilling activities. Combined with an aggressive hedging program, SandRidge's focus on drilling costs enables them to lock in exceptional rates of return.



While energy production is what SandRidge does, it is their involvement in the local areas where they operate that defines them. Commitment to community has been an integral part of the company's culture from the very beginning. Operating under the conviction that active engagement in the community is required to effect real change, the company partners with organizations that are passionate about helping those in disadvantaged situations.

In 2007, SandRidge partnered with White Fields, a long-term home for severely abused and neglected boys, to sponsor the first annual White Fields Invitational Golf Tournament. Raising more than \$160,000 the first year, the tournament has continued to grow and in 2011 marked its fifth anniversary as one of Oklahoma's largest and most successful charity golf tournaments.

SandRidge also began sponsoring the annual SandRidge Santa Run in 2007. An officially sanctioned 5K run, the Santa Run is part of the month-long Downtown in December Christmas celebration in downtown Oklahoma City. Desiring to do more than just write a check, SandRidge added a children's health fair component, adopted the OKC Police Athletic League as the event beneficiary and significantly increased the event's visibility within the community. Overall participation in the event has grown exponentially each year since.



SandRidge employees understand that they enjoy benefits and opportunities inaccessible to many. They are also aware of their responsibility to actively participate in the elevation of those less fortunate, and to do so with open arms and a caring spirit. Even as the company provides direct support to organizations that take active and innovative approaches to meet the needs of the community, it is the compassion and kindness of the company's employees that enables SandRidge to profoundly impact those around them.

For more information about SandRidge Energy, Inc., visit www.sandridgeenergy.com.

LINN ENERGY



Above: Michael C. Linn, director and founder.

Below: LINN Energy has a regional office in Oklahoma City and a dozen field locations in the state.



LINN Energy is a different kind of oil and natural gas company.

The company was founded in 2003 by Michael C. Linn and four employees with no office space or wells. The goal was to acquire Appalachian assets, then sell them to a large independent within three to five years.

LINN first acquired assets located in a natural gas field in New York state. This was followed by numerous acquisitions of Appalachian assets.

In 2005, Kolja Rockov, who was with RBC Capital Markets at the time, suggested that Linn take the company public as a limited liability company instead of selling it to a large independent. An entrepreneur at heart, Linn saw the potential of the idea and Rockov joined the company as chief financial officer.

In January 2006, LINN Energy became the first publicly traded upstream limited liability company (LLC)—a hybrid of the C-corp and MLP business models. As an LLC, LINN's primary business objective is to provide stability and growth of distributions (dividends) to its unitholders.

Making LINN's strategic business model work requires: acquiring high-quality assets that provide stable, long-life, production with predictable decline curves and low-risk development opportunities; enhancing production through organic activities; and aggressively hedging oil and natural gas production to reduce cash-flow volatility.

And the strategy is working. By year-end 2011, LINN Energy had a reserve life of more than 20 years, approximately \$7 billion of completed acquisitions, and most of its expected oil and natural gas production hedged at attractive prices through 2015. Plus the company paid its twenty-third consecutive quarterly cash distribution in November 2011.

As of March 2012, LINN had become the eighth largest public MLP/LLC and eleventh-largest domestic independent oil and natural gas company, with an enterprise value of more than \$11 billion. The company's core focus areas are the Mid-Continent, Permian Basin, Powder River Basin, Kansas, Williston Basin, Michigan, and California.

After LINN went public, it acquired an ideal asset for its business model in California. The Brea Olinda Field of the Los Angeles Basin was initially discovered in the late 1800s and has a low decline rate of approximately two percent. The field routinely provides the company with low-cost oil-optimization opportunities.

Later in 2006, LINN acquired the first of many Oklahoma properties through a transaction with Kaiser-Francis and added to its position with a Lamamco acquisition. An acquisition of properties from Dominion turned out to offer much more than originally expected, as the prolific Granite Wash position was included.

Numerous additional acquisitions have been added since 2007, contributing to significant growth in Oklahoma and other operating areas across the United States.

While preparing for the growth the Dominion and Lamamco transactions would bring the company, Linn and Rockov brought in Mark Ellis to serve as president. As Linn grew closer to retirement, Ellis moved into the CEO position, which he currently holds,

along with the role of chairman. Linn continues his involvement with the company through his seat on the company's board of directors, where he supports Rockov and Ellis in their vision of continued growth through both acquisitions and the drillbit.



LINN Energy attributes its growth and success to its dedicated employees spread across the United States, as well as the company's commitment to support the areas where LINN employees live and work.

LINN's charitable contributions focus on four key areas: community, arts, health and education. LINN supports a vast number of organizations, including the United Way, American Heart Association, Texas Children's Hospital and Cancer Center, The Children's Center (Oklahoma), Houston Museum of Natural Science, Regional Food Bank of Oklahoma, American Cancer Society, Habitat for Humanity and Project GRAD.

LINN is headquartered in Houston, Texas, and maintains a regional office in Oklahoma City. The company also has 30 field locations across the nation, including a dozen in Oklahoma, where almost 300 of LINN Energy's 1,000 employees live.



Clockwise, starting from the top, left:

LINN Energy made its first step into Oklahoma in 2006.

LINN employees are focused on producing oil and natural gas safely and responsibly.

LINN Employees are connected to our communities. They partner with Habitat for Humanity to build dream homes.

LINN Oklahoma employees raised more than \$30,000 for The Children's Center.



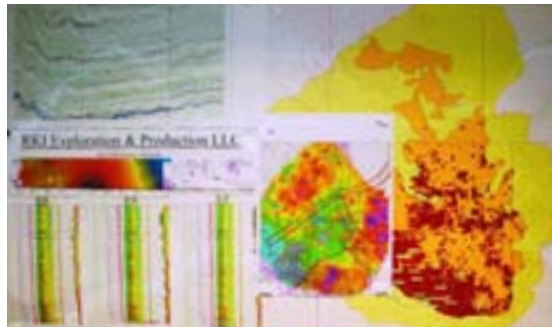
RKI EXPLORATION & PRODUCTION, LLC



Above: Ronnie Irani, founder and chief executive of RKI Exploration & Production.

Below: State-of-the-art technology plays a key role in finding new oil and natural gas reservoirs.

Armed with the conviction that large accumulations of oil and natural gas reserves were still left untapped in certain regions, Ronnie Irani started RKI Exploration & Production from the grass roots in June 2005. Today RKI has 54 full-time employees, over 6,000 BOE



per day of net production, 2012 drilling capex of over \$600 million, and an acreage position that can rival many of the larger companies. "Our company has experienced a very rapid growth rate and we expect the pace to accelerate even more over the next several years. We've been extremely fortunate that our assets are predominantly resource based, oily and located in prolific oil dominated basins," says President and CEO Ronnie Irani.

Based in Oklahoma City, RKI has been focused on acquiring strategic, large-scale sites in areas known to be rich in oil and natural gas. Most are located in Wyoming, New Mexico, and West Texas, as well as Oklahoma. RKI's competitive advantage is its highly experienced staff and its ability to strategically position itself in plays before the competition gets there. "We visualize plays on a very large scale and then fine tune our efforts to zoom in on the core area of the play." This methodology has served RKI very well in accumulating over seven hundred thousand net acres in several prolific oil regions including the Permian and the Powder River Basins. Due to its increasing operations, RKI plans to add thirty more people to its staff during 2012.

Building big leasehold positions and growing companies is not new to Irani. Irani has served in senior executive positions at Woods Petroleum Corporation, Louis Dreyfus Natural Gas Corp., and Dominion Resources, all public companies listed on the NYSE. As a senior at OU, Irani worked as a summer intern at Woods Petroleum in Oklahoma City. After graduation in 1980, he was offered a full-time job and stayed with the company until it was sold in 1990. He joined the Louis Dreyfus Group shortly thereafter and, within ten years,

he and his fellow Dreyfus executives had turned the \$50-million investment into a \$2.3-billion enterprise, which was sold to Dominion Resources. Irani stayed on and served as Dominion's senior vice president and general manager of the Western U.S. Business Unit before launching his own firm—RKI Exploration & Production—in 2005.

When RKI was named the winner of the Oklahoma City Metro's fastest growing private companies in 2011, Irani told a reporter that, "Competition for oil and gas leases, experienced personnel, and field services in our industry is very intense. Because we chose to play the 'big boy's game', we find ourselves competing with some of the largest oil and gas companies in North America. We have put together a group of highly experienced and talented individuals who understand the business, how to take an idea and make it real, and have confidence in our ability to accomplish our goals through diligence, integrity and hard work."

Irani's American success story began in India, where he grew up in a small town four hours by train from Bombay. He recalls being introduced to western novels and movies during his fifth or sixth year of school and envisioning what it would be like to live in America. That adventurous spirit and imagination has played a big part in Irani's success throughout his career in the oil industry.

An older brother had studied petroleum engineering at Oklahoma University and after Irani completed his undergraduate degree at the University of Bombay in 1977, he decided to further his studies at OU. Irani arrived in Norman just shy of his twenty-first birthday and eventually earned both bachelors and master's degrees in petroleum engineering. He later added an MBA from Oklahoma City University.

Irani is on the executive committee and is incoming chairman of the board of visitors of the Mewbourne College of Earth & Energy. He also serves on the boards of the School of Petroleum and Geological Engineering and the Business Energy Solutions Center at Price College of Business. Irani has helped create several energy related programs on the OU campus that give the students a better understanding of the Industry. Through the Ronnie Irani Student Endowment Fund, he helps students in areas of scholarship, mentoring and leadership.

Irani is a graduate of Leadership Oklahoma and Leadership OKC. Irani also serves on several industry-related boards and is currently



vice chair of the Oklahoma Energy Resources Board (OERB) and Oklahoma Independent Petroleum Association (OIPA).

Irani serves on the board of the Greater Oklahoma City Chamber of Commerce and has also been active in organizing the newly formed India-U.S. Chamber of Commerce of Greater Oklahoma City where he currently serves as president.

"I've had a successful career in corporate America, all of it right here in Oklahoma," says Irani. "My past thirty-four years in Oklahoma and in the oil and natural gas industry have been tremendous. This is an amazing industry with amazing people working in it. If you're creative, can take some risk and are willing to work hard, there can be no limit to your success."



Above: RKI rigs actively drilling in Southeast New Mexico and West Texas.

Below: Powder River Basin, Wyoming—drilling in the Niobrara and Frontier formations.



EAGLE ENERGY COMPANY OF OKLAHOMA, LLC

Eagle Energy Company of Oklahoma, LLC, was founded by Steve Antry after the oil and gas industry's 2008 boom ended and he realized that as natural prices declined, some of the major players of the industry went from spirited cooperation to infighting. Out of this relative turmoil, Steve decided to consolidate a particular producing trend in Oklahoma.

The primary producing zone, the Horizontal Hunton Lime, was a solid, consistent producer and in December 2009, Eagle was able to successfully acquire several major players as well as other smaller producers, for a total of nine transactions, in two major geographic areas. With the large Hunton asset in hand, Eagle moved on to the secondary objective, the Horizontal Mississippi Lime, which showed promise as an oil resource play. The risk capital paid off and the Horizontal Mississippi became the primary asset and Eagle became one of the pioneers in the trend with total company reserves exceeding \$2 billion by 2012.

Riverstone Holdings, LLC, Eagle's Private Equity backer, approved of the Hunton consolidation back up and were willing to risk capital alongside Eagle to test what once was the secondary resource. In other words, Eagle believed in the play and Riverstone believed in them. Today, Eagle remains one of the pioneers and major stakeholders of such an innovative trend and is one of the fastest growing companies in the state.

Steve has over thirty years of industry experience and is from a third generation Oklahoma oil family, receiving his BBA (1977) and MBA (1978) degrees with an emphasis in finance from Texas Christian University. Additionally, he was nominated for both 2011 and 2012 for "Entrepreneur of the Year" by the accounting firm Ernst and Young.

By coincidence, Steve's office is the exact office where his father, Jack Antry, once sat for Nicor Drilling. The accompanying sense of responsibility has not been lost on him. The high standards he has for himself are the direct result of being Jack's son.

Jack was an exceptional example of a strong, kind, ethical businessman who grew a small drilling contractor into one of the country's largest drilling companies. Steve admired him, often hearing from his employees and local "titans" that his dad was the nicest guy...and a tough businessman.



Right: A stand of drillpipe at Eagle's horizontal Reed IH-10 in Woods County.

Below: Founder and CEO Steve Antry and Operations Manager Ladd Sullins stand atop a sand hopper at the frac of the Award IH-31 in Alfalfa County.



Steve was fortunate to have grown up as a Tulsa third generation oil and gas man, but from the service side of the business, he was "born with a plastic spoon in his mouth" and was familiar with the extreme cycles and risk inherent in the industry. He grew up in modest means, but around persons he respected and liked that "were eating from sterling."

Steve recalls, "Tulsa is full of successful energy people who are sincerely good people. This probably had something to do with why I respected the industry...but wanted better silverware."

Eagle, Steve's second E&P venture of notable size, is no exception to his preference for contrarian periods and/or plays. Going back to his childhood experience with the energy industry, he understood volatility. He has spent relatively long periods in his career waiting for the energy sector to calm down to re-enter, or heat up to exit. All new companies demand significant risk in opportunity, initial capital and reputation, but his strategy has always been timing and it has worked well.

Today, Eagle Energy Company of Oklahoma, LLC, is headquartered in downtown Tulsa at Fourth and Main Streets and includes field offices in Dacoma in Woods County and Chandler in Lincoln County.

President and COO of Eagle Mike O'Kelley, was previously the manager/operation engineer and project leader for Newfield Exploration Mid-Continent, Inc. Mike previously served as the vice president of operations, drilling and production for Rockford Energy Partners, LLC, as well as operations manager for Beard Oil Company (OKC) and vice president of operations for Canaan Energy (OKC). He received his bachelor of science in petroleum engineering from the University of Oklahoma.

Ben Kemendo, CFO of Eagle was a partner with Woodrum, Kemendo, Tate & Westemeir, PLLC, a private accounting and consulting firm in Tulsa. Prior to forming his own accounting firm, Ben began his public accounting career in 1977 with Peat, Marwick, Mitchell & Co.

Ladd Sullins, the operations manager for Eagle previously worked as the operations/completions engineer with Newfield Exploration Mid-Continent, Inc.

Eagle Energy and its employees are proud partners in supporting the communities they serve through a variety of local charities and organizations. In this regard, Steve has always been a "hands-on" person. He has served as a Big Brother and has been actively involved in donating and delivering wheelchairs to Mexico through the Rotary Club of Tulsa. He tutored reading at Celia Clinton Elementary; a local underprivileged school, and he enjoys his work as a counselor in a mentoring program for exceptional high school students who want to learn more about capitalism at



Camp Enterprise, also through Rotary. Steve has also taught in the Junior Achievement Entrepreneurial Seminar at a local underprivileged elementary school and is a member of the Board of Junior Achievement of Tulsa.

For more information about Eagle Energy Company of Oklahoma, LLC, visit the company online at www.eagleenergyok.com.



Above: Drillpipe is at the ready for the Lohmann in IH-8 in Woods County where the Mississippi Lime is at a depth of about five thousand feet.

Below: A tank battery at the Lohmann IH-8 in Woods County.



CONTINENTAL RESOURCES, INC.

Since the company's inception forty-five years ago, Continental Resources, Inc., has been a leader in exploring and producing oil and natural gas resources.

Harold Hamm, the founder, chairman and CEO of the company, was born in Lexington, Oklahoma. The youngest of thirteen children, he was raised by hard-working parents in a one bedroom house with no electricity or running water. As sharecroppers, the Hammes never owned their land and survived by working for landowners pulling cotton, hauling hay and other laborious jobs.

After graduating from Enid High School, Hamm worked for an oilfield-service contractor and Champlin Petroleum Company. As the work prospered, he was encouraged to venture out and start a business of his own. At the age of twenty, he took over payments on a

used tank truck and borrowed \$1,000 on a cosigned note. With that, he started a one-truck oilfield-service business in Ringwood.

In 1967, Hamm incorporated Shelly Dean Oil Co., named after his two oldest daughters. By 1974 the company began drilling a series of successful well sites in Oklahoma and was off and running. In 1985, Hamm acquired Petro-Lewis and more than five hundred oil and gas wells.

The decade of the 1990s included the renaming of the company to Continental Resources; the discovery of Ames Hole, one of only six oil-producing meteorite craters in America in 1991; and a major expansion into the Rocky Mountain region and the use of 3-D seismic tools in 1993. In 1995 the company discovered the Cedar Hills Field, the seventh largest onshore oil field in the lower forty-eight United States ranked by liquid proved reserves. Continental Resources became the first company to develop it exclusively through horizontal drilling.

In 2003, Continental secured its foothold in the North Dakota Bakken with a purchase of three hundred thousand acres. The company completed the Robert Heuer 1-17R in Divide County in 2004. The Heuer was the first commercially successful well in the North Dakota Bakken to be both horizontally drilled and fracture stimulated, and that early success stirred interest and investment. The well grew the Bakken into the play that exists today. By 2007 the company celebrated its listing on the New York Stock Exchange (ticker symbol: CLR). In the same year, they became the first to simul-



frac wells in the Arkoma Woodford, a natural gas producing play located in southeastern Oklahoma.

In 2010 the company introduced the ECO-Pad® drilling technique to drill four wells from a single drilling pad, which allows the development of two separate formations on two separate spacing units simultaneously, increasing production efficiency, and allows Continental to harvest more of a reservoir's resources while reducing environmental impact on the surface of the land.

Today, publicly-held Continental Resources is led by Chairman and CEO Harold Hamm, and President and Chief Operating Officer Jeff Hume. The company has more than 650 dedicated employees, two of whom were included in *Forbes Magazine's* "30 Under 30" in the energy category. Originally located in Enid, the company opened its new corporate headquarters in downtown Oklahoma City in 2012.

Continental's field offices are located in Illinois, Montana, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming, while major U.S. operations continue at Bakken/Three Forks in Montana and North Dakota; Red River units in Montana, North Dakota and South Dakota; Niobrara in the northern Rocky Mountain region of Wyoming and Colorado; and Anadarko Woodford and Arkoma Woodford in Oklahoma.

Continental has remained dedicated in its community efforts. Historically, employees



have provided support and materials for the School Backpacks program, Continental Kids Academic Challenge, The Continental Resources Great Land Run, The Continental Resources Science Adventure Club, and the United Way.

The company focuses its major gifts on research and education, including substantial donations to Enid Public Schools for monetary funding and the purchasing of SMART boards and other school supplies; the founding of the Harold Hamm Diabetes Center for diabetes research focuses on progress toward a cure, education and prevention of the disease; contributing to the State Historical Society of North Dakota's Heritage Center by funding the Continental Resources Inspiration Gallery; and creating a petroleum engineering chair at Oklahoma State University.

Continental Resources is located online at www.contres.com.



WALTER DUNCAN OIL, L.L.C.

Walter Duncan Oil, L.L.C. is the exploration and production company of the J. Walter Duncan, Jr., family. The family's legacy in the industry is deeply rooted in nearly a century of exploration in the United States. The family's oil business began in 1937 in the oil fields of southern Illinois. Fresh out of Notre Dame, and bankrolled by his father, Walter Duncan of La Salle, Illinois, Walter Duncan, Jr., began buying minerals and leases near existing production. Hard work and vision lead to early success and eventually they began to retain working interests and participate in drilling activities.

As exploration activity in the Illinois Basin began to wind down in the 1940s, Walter, Jr. decided to follow activity to central Oklahoma. He moved to Oklahoma City in 1949 and opened the family's Mid-Continent office. Although production from the family's Illinois interests continued into the 1980s, the future of the family's business now moved to other horizons. Walter's younger brother, Raymond Duncan, settled in Denver in the 1950s and became very active in the Rocky Mountains. Eventually, Walter, Jr.'s, other brother, Vincent, joined Ray in the business in Denver. For a period of time, Walter, Jr., had offices in Houston and Midland. The brothers and their father participated with each other for over forty years with little more than a handshake agreement.

Ironically, Walter, Jr.'s most successful venture occurred not in Illinois or Oklahoma, but in Texas in partnership with Joseph I. O'Neil, Jr., a fellow Notre Dame graduate and resident of Midland. Walter and Joe began watching activity in Scurry County, Texas in the early 1950s, where a major oil company had made a discovery in the Strawn formation. A Strawn wildcat was being drilled ten miles from existing production. Using the same combination of expert scouting and "close-ology" that had been successful in Illinois, they were able to establish intervening leasehold at exactly the right time. The real story also involves a secret drill stem test, a good pair of binoculars, and a paper bag with \$100,000 in lease purchase cash.

Duncan and O'Neill participated in twenty-eight straight Strawn producers. Their best well was the Huckabee, which encountered 600 feet of reef above the top of the surrounding Strawn. The story goes that Huckabee's wife brought his first royalty check to him while he was plowing the "south forty" on his tractor. The tractor still sits where he left it in 1952. All of the wells were subsequently unitized into the Kelly-Snyder Unit and continue to produce in tertiary recovery to this day.

Led by Walter, Jr., and his brothers, the family's business activities have also included real estate and hotel development, and various other investments. Walter, Jr., owned the New Jersey Generals of the USFL in the early 1980s and built the Security Life Building in Denver in the early 1960s, the first structure over thirty stories in Denver. Walter, Jr.'s brother, Ray, founded the Purgatory Ski Area in Durango, Colorado, and Silver Oak Cellars in Napa, California. Walter, Jr., died in 2009.

Walter, Jr.'s, sons, Walter III and Nick, actively managed the company during the 1970s and 1980s. Since 1993, Walter, IV has managed the family oil and gas interests.

Walter Duncan Oil, L.L.C. is headquartered at 100 Park Avenue, Suite 1200 in Oklahoma City, includes thirty-five employees and operates 155 wells concentrated in Western Oklahoma. The company remains dedicated to a variety of outstanding service organizations throughout the community, including United Way, Komen Race for the Cure, and Rebuilding Together OKC.



Dated April 15, 1956, this historic snapshot captures the site of the O'Neill E. T. Schoepf No. 1, Hockley County, Texas, discovery well in the Ropes Field. Regarded as one of the earlier wells in the west Texas area, the photograph includes partners J. Walter Duncan, Jr., (facing camera in the rear) and Joseph I. O'Neill, Jr., (facing camera over flowing well). The well encountered approximately 120 feet of reef above water and was potentialed for 289 BOPD, no water, and 225,000 CFG.



MORAN OIL ENTERPRISES, LLC MORAN-K OIL, LLC

A heritage that reaches back nearly a century across the Oklahoma landscape, the Moran family first settled in the state when Meyer Moran immigrated to the area from Latvia in the late 1910s. He began buying scrap iron from abandoned wells and founded Moran Pipe and Supply Company in 1924.

Moran had purchased an abandoned well, named the W. C. Davis, located between Maud and St. Louis, Oklahoma for the purpose of salvaging and selling the equipment. Instead, Moran decided to try to produce this well and the well was soon giving up its “black gold” once again. Today, it remains in production at nearly the same level.

As his pipe and supply company and oil business flourished, Moran established the Meyer Moran Revocable Trust and operated oil wells under that name. In the late 1940s, he welcomed his brother-in-law, George Kahn, as a partner in the pipe and supply company.

Upon Moran’s death in 1979, his estate was left to his children. His son Sidney retired from Shell Oil Company before joining Moran Oil in 1988. His son Melvin joined the company in 1953 after service in the Air Force and co-managed the supply company for twenty years, while at the same time, managed oil operations.

In 1981 the Moran family sold its interest in the pipe and supply business to the Kahn family, and kept its growing oil well leases. The Moran Kahn Oil Company was

established to reflect the separate families’ interest in pipe and supply and oil well production. Later, Moran-K Oil, LLC and Moran Oil Enterprises, LLC were also founded.

Today, Moran Oil Enterprises, LLC and Moran-K Oil, LLC operate eighty to ninety wells with hundreds of partners. Though the company first expanded with well sites throughout Oklahoma, Kansas and Texas, it proved more successful to establish and care for sites closer to its headquarters in Seminole. Thus, eighty percent of the wells today remain within fifty miles of Seminole.

The two oil companies are under the leadership of a four-man team including the Moran brothers, Melvin, who serves as CEO; Sidney, a partner and geologist; Melvin’s son-in-law, Gary Kleiman, an attorney and operating partner; and Sidney’s son, Everett Moran, who joined the company in 1983 as a geologist and a partner, and supervises production.

Company personnel includes two full and two part-time staff members, Sherry Cowan, Barbara Jones, Thelma Arnold and Kerri Cheatwood, at its headquarters in Seminole, and fifteen pumpers. The company is located at 222 North Second in Seminole, by phone at (405) 382-6001, and online at moemk@swbell.net.

Moran Oil Enterprises, LLC remains dedicated to strengthening the communities it serves and agrees that their legacy lies most securely “in doing a lot of good things for our city and our state.”



Bottom, left: Left to right, Sidney and Melvin Moran, 2012.

PHOTOGRAPH COURTESY OF BOB RUBIN, 360-USA.COM IMAGES.

Bottom, right: Left to right, Everett Moran and Gary Kleiman, 2012.

PHOTOGRAPH COURTESY OF BOB RUBIN, 360-USA.COM IMAGES.



ATCHLEY RESOURCES, INC.



Clockwise, starting from the top:

One of Atchley's tank batteries in Major County, Oklahoma.

ARI Staff: Standing left to right, Kim Lockwood, Ron McMurray and Wes Atchley. Seated left to right, Carol Copeland, Ron Atchley and Susan Underwood.

Atchley Resources Inc. office building.

Roughnecks making a connection while drilling a well for Atchley in McClain County, Oklahoma.



Formed in July 1997, Atchley Resources, Inc., operates wells across Oklahoma and serves as a non-operator as it participates in a variety of other drilling projects throughout the region. The company drills its own prospects and also buys both operated and non-operated oil and gas wells.

The company's founder, Ronald (Ron) W. Atchley, served as a partner with Earlsboro Energies Corporation, an independent oil and gas company based in Oklahoma City for seventeen years before starting Atchley Resources. Shortly after forming the company he, along with some partners, bought an existing, deep oil well that needed some expensive work in order to restore the well to production. This well was successfully restored to production but after producing successfully for only a few months expensive repairs were again needed.

Unfortunately oil prices had fallen to below \$10 per barrel so Atchley found it necessary to wait for several months until oil prices went up before restoring the well to production. Despite this dubious start, Atchley Resources was born and the company continues to grow and prosper.

Well over a decade later, Atchley Resources, Inc. operates more than 120 wells in Oklahoma and owns working and royalty interests in over 200 wells. Ron's son, Wes Atchley, came to work for him in early 2001 and he manages the financial operation of the business. Wes graduated

from Oklahoma City University in 1993 with a B.S. degree in finance. Ron hired Kim Lockwood in 2007 to be the operations manager. Kim is a 1973 graduate of the University of Central Oklahoma with a B.S. in physics. Ron McMurray joined the company in 2008 as land manager. McMurray is a 1969 graduate of West Texas State University with a degree in management.

Ron's father, George W. Atchley was a 1949 petroleum engineering graduate from the University of Oklahoma. George loved the oil business and encouraged young Ron to follow in his footsteps. So encouraged by his father, Ron graduated from Louisiana State University with a B.S. degree in petroleum engineering in 1968. Although Ron worked every summer in the oil field during his college years, his first full-time job was working for Conoco in Lafayette, Louisiana, as a reservoir engineer. After working for only a few months, Ron's career was interrupted by Uncle Sam. He fulfilled his military obligation by serving in the United States Air Force as a pilot. In September 1973 Ron resumed his career with Conoco.

Today, Atchley Resources, Inc., is located near the intersection of Memorial and May Streets in northwest Oklahoma City and includes five full-time employees and three part-time assistants at various period throughout the month.

Atchley Resources, Inc., is a proud member of the Oklahoma Independent Petroleum Association (OIPA) and the Oklahoma City Chamber of Commerce, and sponsors a variety of local and national charities.



HARDING| SHELTON INC



John Shelton and Charles Harding first worked together for Phoenix Resources in 1978 and formed a friendship based on respect for each other's distinct abilities. Subsequently the two men established an E&P company, believing they could be successful as owners. Shelton and Harding were joined by Ted Keeney, Richard Barker and Gary Lake as long-time members of the management team.

Harding|Shelton Inc was founded in August 1983 operating in four counties in western Oklahoma. Today, the company leases, drills and produces minerals and operates more than one hundred wells from Weatherford to Woodward. They continue to grow through an active drilling program. H|S has a number of subsidiaries involved in stripper wells, service workover rigs and midstream/gathering. A sister company develops commercial real estate in historic Bricktown and other localities.

John Shelton recalls that the young company did not have a lot of capital but grew steadily over several years—an era fondly remembered as “boot strapping.” One serendipitous moment came in 1987 when the men bought a stripper well and discovered hundreds of barrels of oil in tanks, and then reworked the well and later sold it to realize a hundred-fold total return. It is these fortuitous adventures that color H|S's history. One of Charles' catchy quips puts it well: “sometimes

it's better to be lucky than smart.” A breakthrough came in 1999 when four entities were organized to help finance new drilling.

Today, Harding|Shelton is actively exploring and developing several liquids-rich plays, mostly tight sands resource plays and other complex horizontal opportunities. H|S is among only a handful of companies engaged in this exploration in northwest Oklahoma, and the smallest. The firm's unmatched understanding of the territory, fierce independence and an elite group of people keep H|S competitive.

Recently, in partnership with Harding Energy Partners in Dallas, Harding|Shelton completed four contract projects with Chinese oil companies to explore for, drill, and complete China's first-ever targeted shale gas horizontal wells. H|S engineers created the drilling and completions programs and the company's executives advised on geophysical exploration to delineate potential shale plays. This illustrates H|S's independent spirit and ability to anticipate future opportunities.

H|S employs twenty-five people and many have been with the company for ten or more years. John Shelton serves as president; Charles Harding is executive vice president; Kevin Dunnington is vice president of corporate affairs; and Nathaniel Harding is vice president of operations.

Company employees are active in the community, including the Symphony Orchestra League, Rotary Club, Downtown Club, Maverick PAC, Petroleum Club, Allied Arts, Chamber of Commerce, Court Appointed Special Advocates, Chas Harding Memorial Fund, Plaza District Association, deadCENTER Film Festival, and employee-founded Oklahoma Natural Energy PAC.

Located in historic Bricktown, Harding|Shelton is actively building for the future as it transitions from second to third generation of the organization's legacy. For additional information on Harding|Shelton, visit www.hardingshelton.com.



Above: Charles Harding (left) and John Shelton (right).

Below: Nathaniel Harding (left) and Kevin Dunnington (right).



GLB EXPLORATION, INC.

Glenn Blumstein began his career in the oil industry working as a mudlogger in the late 1970s and continued as an employee for Terra Resources and Jake L. Hamon through 1985. After going out on his own as a prospector in 1985, Glenn's company, GLB Exploration, Inc., was founded out of frustration as he began to realize that the prospects he was generating and selling to operators in Oklahoma were not being drilled. This revelation prompted Glenn to take his prospecting a step further when he decided to start his own drilling operation in May 1992. He did this with the help of his banker, Bob Holmes of Coppermark Bank, who extended to Glenn his first letter of credit with the Oklahoma Corporation Commission, which allowed GLB Exploration, Inc., to obtain surety.



Glenn Blumstein.

Glenn recalls the first well that he and his landman, Jimmy Sparks, drilled in Kay County. It was a six-hundred-foot, air-drilled hole and as they sat in Glenn's car watching on what had turned out to be a cold February day, Glenn decided they should venture out of the vehicle to get a closer look at the rig. About the time they arrived at the rig, the mist changed from black to white, indicating they were in sand. The rig operator stopped the compressors and there was an immediate roar of gas.

"Jimmy was as white as a ghost," Glenn remembers. "He couldn't believe we had found gas on our first operated well. The driller placed a gauge on the well and eight hundred MCF sounded very good!"

The next story is one that Glenn says, "I will place in my 'humorous now, but not when it happened' file." After fracture stimulating a new well all day in an area near Lone Grove, Glenn's consultant received a phone call from a nearby homeowner very upset by the fact that "his house had cracked and walls in his home were crumbling."

Glenn decided to stop the process and visit the homeowner to survey the damage. During the drive there, they received a call from someone else who lived about five miles northeast of the well asking if "they'd felt the shake." It was at this point that Glenn felt sure there had been an earthquake coinciding with the operation. After surveying the homeowner's damage and receiving complaints from others in the area that "it must have been your fracturing that caused the damage." Glenn returned to the well location to learn that, indeed, there had been an earthquake in the Carter County area, with the epicenter about 8 miles northwest of the location and 3.1 miles deep. In fact, it was the strongest quake since August 2002. The next day the television station in Ardmore wanted to interview Glenn to ask him if he could cause an earthquake. Since the unusual event, Glenn's sister-in-law has called him "Glenn Almighty." On a side note, the well was making nine hundred barrels of oil per day from its second day of operation.

GLB Exploration, Inc. drilled the number one rated most significant well in Oklahoma in 2009—the Hatch #1-29H in Section 29-15-23W, Jackson County, Oklahoma. The Hatch was the first Barnett shale producer in Oklahoma. In 2010, GLB drilled the number ten-rated most significant well in Oklahoma—the Carol Sue #1-20H. The Carol Sue is a horizontal well in the Atoka Sand.

With its only office located at 7716 Melrose Lane in Oklahoma City, GLB Exploration, Inc. now includes six full-time employees and operates approximately 110 wells as of July 1, 2011.

GLB Exploration, Inc. is a proud supporter of the community in which its employees live and work and they donate their time and resources to a variety of organizations including the Oklahoma City Food Bank, Allied Arts, and OKC Symphony.

Founded in 1951, Keith F. Walker Oil & Gas Company is an oil and gas exploration and production company based out of Ardmore, Oklahoma. The company has continued to grow in size since 1951 and now has twenty employees.



Founder Keith F. Walker was the son of a Magnolia Oil Company employee and had always aspired to join the oil and gas industry himself. However, after graduating from Southern Methodist University in 1942, Walker enlisted in the U.S. Army Air Corps as a second lieutenant after cadet school at Yale and further training at M.I.T. Walker spent World War II as part of an aerial photography reconnaissance crew and spent four years in the Army Air Corps mapping air routes. He was originally stationed in Colorado Springs, Colorado, and then transferred to India and the Philippines. By the time the war had ended, he left the military with the rank of captain.

Taking advantage of the G.I. Bill, Walker returned to school at the University of Oklahoma, where he received his graduate degree in geology. After graduation, he was hired as a geology instructor at Southern Methodist University. While at the university, he met his beloved wife Mary LuAnn Foster. They were married on September 10, 1949, and were happily married for sixty-one years prior to her death in May 2010. In 1948, he decided to move to Ardmore and went to work for J. D. Lewis and later for Gibson-Halliman, independent oil producers from Ardmore. Then in 1951, with money he had saved during his service in the military, he started drilling operations on his first well.

Over the years, Walker worked with many other oilmen, including F. M. Petree and Otey Johnson. Many of the old wells and sites that were drilled in the early days are being redrilled by the company and new production zones are being located. The company currently has producing properties in Oklahoma, Kansas, Texas and Wyoming. Past employees of the company include Paul Ball, Pat O'Connor, Joe B. Thompson and Frank Dale.

Today, Keith F. Walker Oil & Gas Company employs a professional staff that manages the day to day operations of approximately 250 wells. Sons Dale and Robert Walker, daughter Luann Walker (and grandsons Aaron Walker and Stephen Smith) provide expertise from years in the business themselves. Mr. Walker remains active in the business as an "outside investor." The professional staff consists of Alan Stacy, CEO; John Gilbert, land manager; and Steve Carlson, geologic manager. Current longtime employees include Cindy Smith, Judy Lucas, Barry Jones, Larry Miller, Terry Claxton, and Steve Dixon.



Walker commented that he does not want to retire and wants to stay as active as long as he can. "I've had a number of friends I grew up with and they retired at sixty-five or seventy years old. None of them are living anymore. I have a feeling when people retire, their longevity is not very good. I want to stay active and stay busy."

KEITH F. WALKER OIL & GAS COMPANY, LLC



Left: Keith Walker, while stationed in Colorado Springs.

Below: The Keith Walker Family. Back row (from left to right): Sarah Smith, Mary Walker, Dale Walker, Keith F. Walker, Luann Walker, Stephen Smith, Aaron Walker, Audrey Walker, and Michael Smith. Front row (from left to right): Nicholas and Robert Walker.

LANDERS & MUSGROVE OIL COMPANY, INC.

Founded by Philip E. Landers and Marvin Musgrove, Landers & Musgrove Oil Company, Inc., was created in 1965 as an independent oil and gas producer purchasing leases, washing them down when needed and making producing wells for both oil and gas.

It began when Marvin was working as a drill stem testing operator and met Philip, a driller on a drilling rig. The men soon became friends and often met at various leases in the field before deciding to form a partnership and their company was born. They were a perfect combination in business, with Marvin's ability to make informed decisions and Philip's outgoing personality as the "PR" man.

Landers & Musgrove Oil Company, Inc. drilled their first well at the Steichn Lease in Kay County. It produced a startling 120 to 130 barrels of oil per day, but at the time the price for a barrel of oil was just pennies on the dollar so the men could not afford the cost of motel rooms and had to sleep in their vehicles. They went on to drill eight more wells before selling out.

As the company grew, they purchased the Leake well in Lincoln County in 1969. It was only producing two barrels of oil a day but the men were not to be outdone. They fracked the site and the well soon averaged two hundred barrels per day and remains a vital producer today. The effort solidified Landers & Musgrove as the "Kings of Washdowns."

Throughout the company's existence, Musgrove and Landers experienced firsthand the historic journey that existed in the life of the independent oilman in the world oil and gas in Oklahoma in the twentieth century. They saw the price of oil stagnate at \$2 a barrel and watched in amazement as it eventually climbed to over \$100 a barrel. They were blessed with good employees and treated everyone with respect and honesty. Even in lean times "no employee was ever laid off and not one paycheck ever bounced."

In 2007 the company was divided upon the death of Musgrove and now includes Landers Oil & Gas, Inc., and Musgrove Energy, Inc.



CUMMINGS OIL COMPANY

Douglas R. Cummings was born in 1929 in Webb City, Oklahoma. His father worked as a field hand in the giant Burbank Field for the Gypsy Division of Gulf Oil. The Cummings family moved frequently from oilfield camp to camp, usually living in shotgun houses in southeast Kansas and fields in the Northeastern and Seminole areas of Oklahoma. Before settling in Crescent, Oklahoma, Doug had attended at least eight elementary schools in oil field camps. After graduating from the University of Oklahoma, with a B.S. in geological engineering, he served in the Korean War as an Army lieutenant.



Upon returning, Doug applied for a job at Kirkpatrick Oil Company in Oklahoma City. He worked there for twenty years, including as general manager for many of those years. When John Kirkpatrick decided he wanted to focus more on philanthropy, he challenged Doug that he could give away more money than Doug could earn for the company. They both enjoyed a very long and successful, personal and professional relationship.

In the early 1970s, Kirkpatrick decided to slow down the oil business. He supported Doug's decision to start his own business, Cummings Oil Company, and provided office space in the back room at Kirkpatrick Oil.

Doug started by drilling and operating wells in Central and Northwestern Oklahoma. Cummings Oil has been involved with and operated hundreds of wells in many fields primarily in Oklahoma, but also in Texas and Kansas.

The Cummings family is also involved in many other businesses and investments in Oklahoma, Texas, and Santa Fe, New Mexico.

In 1982, his oldest son, Sean Cummings, came to work for Cummings after earning a BBA in finance at OU. Sean is responsible for all finance, land and marketing functions for Cummings Oil and oversees all of the non-oil and gas investments.

His other son, Brent Cummings, came to work for Cummings Oil in 1985 after earning a petroleum engineering degree from OU. Brent is responsible for all field operations and engineering functions.

Doug also served on the board of directors of Oneok and Liberty Bank/Banks of Mid America. Sean serves on the board of Insurica. All three Cummings serve on the board of the OIPA and Doug is a past chairman of OIPA and was vice president of western Oklahoma for IPAA. Brent has served as chairman of the OIPA Regulatory Committee for over twenty years.

The Cummings family has served as board members and chairmen on a multitude of civic and charitable organizations including the Oklahoma Symphony, OU Foundation, OU Energy Center, YMCA, Children's Hospital Foundation, National Cowboy and Western Heritage Museum, and the Petroleum Club.



Above: Left to right, Brent, Doug and Sean Cummings, March 2012.

Below: In 1986, U.S. President Ronald Reagan met with (right to left) independent oil and gas producers Bobby Parker, Ray Potts, Jack Graves and Doug Cummings in the Oval Office.

PRIMARY NATURAL RESOURCES III, LLC



Above: Left to right, President Mark Sheehan; Chief Executive Officer G. R. "Rich" Talley; and Chief Operations Officer Jack Fritts.

Below: Left to right, Angela Large, Susie McIntire, Brent Huntsman, John Helm, Rusty Renfrow, Cheryl Morrow, Clyde Emigh and Pam Richards.



Primary Natural Resources, a privately owned E&P company, utilizes private equity financing to acquire and develop energy properties with the intent of growing the company to a critical mass where the conglomerated assets could be sold or the company could be taken public. The company has successfully executed this plan twice and is currently in the third iteration.

in 2008. Natural Gas Partners backed both companies, which resulted in returns of greater than 3:1 ROI. Founded in December 2008, Primary Natural Resources III received financial commitment from Quantum Energy Partners and returned exploration focus to the Anadarko Basin.

Each company featured an early acquisition that jump started company development. PNRI purchased Cox Resources Midcontinent properties, PNRII began with the purchase of the Hilight Field in Wyoming, and most recently PNRIII acquired the Citrus properties and later leasing. Primary Natural Resources' future plans include drilling and developing its large acreage position in the Anadarko Basin while still attempting to purchase additional assets.

The company's greatest asset throughout each new formation remains its employees. Most are twenty-plus-year veterans in the industry and have worked together in previous companies creating a compatible workforce. The company benefits from this close knit team, cross trained to maximize results.

G. R. "Rich" Talley, founder and CEO of all three Primary Natural Resources, leads the management team with President Mark Sheehan and Chief Operations Officer Jack Fritts. Other key individuals within the company are Exploration Manager Brent Huntsman and Land Manager John Helm.

The company currently is located at 7134 South Yale, Suite 430, Tulsa, Oklahoma. For more information contact G. R. "Rich" Talley at 918-495-2976 or grtalley@primarynatural.com.

Primary Natural Resources I was founded in November 1999 and focused on the Anadarko Basin prior to Newfield Exploration's purchase of the company in 2003. Primary Natural Resources II focused on the Rockies, primarily in Wyoming, and sold to Resolute Energy

WFD OIL CORPORATION



WFD Oil Corporation, a subsidiary of OPUS Resources Incorporated, is an exploration and production company based in Edmond that focuses its exploring, drilling and production of oil and natural gas within Oklahoma itself. They utilize surface and subsurface geology using 2-dimensional and 3-dimensional geophysics.

WFD was founded on February 1, 1982, by William Frederick "Bill" Dost, Jr., Bill began his career with Tulsa-based Amerada Hess Corporation as a geologist with his primary focus in the Permian Basin and Oklahoma itself. In 1980, Bill was hired by Dalco Petroleum, an independent company in Tulsa, and led their Oklahoma Exploration Program and oversaw their United Kingdom Exploration Program. After working for Dalco for nearly two years, Bill saved \$10,000 and decided that if he could make his company money, then he could also make money for himself. This decision led to his venture into the world of the "Independent Oilman" and the founding of what is now WFD Oil Corporation.

The company has been blessed to have made many acquaintances who have shared many years of experience and knowledge throughout the company's development and growth. These great gentlemen include E. J. Athens, Don Brown, and B. H. Waychoff of Tulsa, Bill Hamilton, Jess Harris, Jr., D. E. Davis, Tony Calvert, Marshall Nye, Bob Collins, and Cliff Knight of Oklahoma City, Dail West of Miami, and Don Hughes and Lew Ward of Enid. They had an enduring impact upon the company over the years and their guidance and friendship have been

greatly appreciated. Other men such as Hearne Williford and Kent Harrel of Tulsa, Pete Brown and Joe Warren of Oklahoma City, James Jack of Sulphur, and Harry Spring of Ardmore are all good friends and confidants whose wisdom the company continues to rely on.

Recently, WFD has been very successful doing business with friend David LeNorman of Oklahoma City. Projects and deals made with Dave have grossed in excess of \$200 million and have opened old areas to new technology with great success. An example of this work is found in the company's Cleveland Sand Play in western Oklahoma, which ultimately ended in more than sixty wells being drilled over a three year period.

Today, WFD remains a company that began with a personal investment of \$10,000 and has grown to include the discovery of over 3 million barrels of oil and 62 billion cubic feet of gas within the past 15 years, with a net cash flow of \$248 million. The company has interests and operates in Oklahoma and has non-operated interests in Michigan, Kansas, and Texas.

WFD Oil Corporation remains dedicated to the communities in which it serves and takes great pride in being associated with many charitable organizations such as Make A Wish Foundation, The Oklahoma Cancer Fund, The Oklahoma Heart Fund, and Oklahoma Medical Research Foundation.



Above: William F Dost, Jr., and Thomas Hess.

Below: William F Dost, Jr., Richard Marlin and Thomas Hess.



MEADE ENERGY CORPORATION

Meade Energy Corporation and Meade Oil & Gas LLC began in 1957 when James Meade was fired as vice president of Great Western Oil & Gas Company in Ada, Oklahoma, and decided to become an independent producer. After two dry holes and rejected exploration opportunities, he developed a seismic prospect in southern Okmulgee County. With this prospect and the aid of gas producers Snee and Eberly, the Virginia field was discovered.

Soon, Snee and Eberly and Meade discovered the Southeast Bryant field. Since these properties were near the Arkoma Basin, they were willing to extend operations into Pittsburg, Haskell, Latimer, and LeFlore Counties.

K. T. Meade, Jr., joined the leasehold campaign. Though the Arkoma Basin appeared to be a forgotten natural gas province, the Meades found that a number of majors were quietly

acquiring leases using the same USGS maps they were using. Initially most of this oil and gas leasing was done by K. T., but James assisted when he was not actively drilling and completing wells in southern Okmulgee County.

At this time, rural eastern Oklahoma gave the impression of being still mired in the great depression and leases could be purchased for as low as \$1 or \$2 an acre. As a result, interests in significant producing gas fields in the Arkoma Basin were acquired and in the process, some memorable experiences.

On one occasion, near Quinton in Haskell County, James met with the owner of a small tract who was agreeable to leasing if James purchased his Colt Single Action Revolver and a Winchester 1873 Carbine for \$75. These guns later proved to be nearly as valuable as the oil and gas lease.

In the early days in the Arkoma Basin, State Senator Gene Stipe was the most powerful

man in southeastern Oklahoma and Snee and Eberly were anxious to lease several of his interests in Pittsburg County. Reluctantly, K. T. made an appointment with the Stipe law firm in McAlester. After twenty minutes, Gene's brother, Clyde, stormed out, "I've got a meeting. You can ride with me, and we'll talk about your lease." The men drove along dusty roads to a farm with a near-collapsing barn. When Clyde pulled open the barn door, there were five men huddled around a rusty still, all holding glasses of clear liquid. K. T. was greeted with a chuckle and, "Hello. Have a drink." Clyde said, "Try it. It'll set you up." K. T. took a sip and his nose curled. After fifteen minutes of farm talk, Clyde announced, "Let's go. We need to get that lease signed."

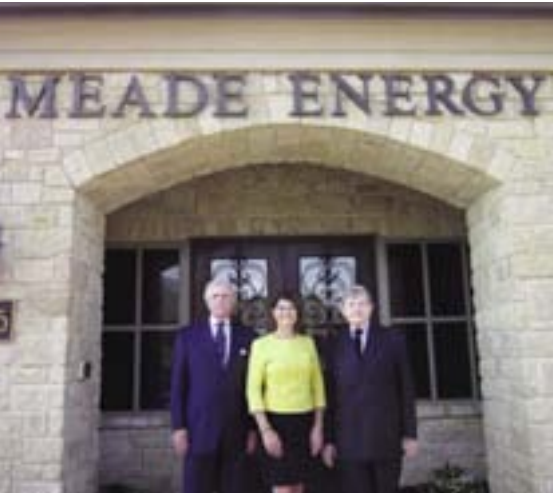
In 1969 the company became active in Dewey and Blaine Counties. Later, they added Fletcher and Verden areas in Comanche and Caddo Counties.

In 1977, William E. Snee died and his portion of the business was sold to Devon Energy Corporation. The company then became Eberly and Meade, which remained until 2001 when the Meade family acquired the interest of the Eberlys, which included all of their properties in Oklahoma as well as mineral and royalty interests in Pennsylvania, West Virginia and Maryland. At that point, it became Meade Energy Corporation and Meade Oil & Gas LLC.

In 1986, Virginia Meade, James' daughter, began working at the company and became its president in 2005. Today, the company includes 15 employees at its headquarters at 5605 North Classen Boulevard in Oklahoma City and 6 employees in its accounting office at 2 West Main Street in Uniontown, Pennsylvania.

In 1990 the Eberly Family Charitable Trust made a \$1-million grant to establish a chair in petroleum and geological engineering at the University of Oklahoma. The James C. Meade and Virginia W. Meade Collections Endowment and the James C. Meade Friends Lecture Series were established at the Oklahoma City Museum of Art, and The Andrew Cray Meade Activity Center and The Eberly Nature Center opened at YMCA Camp Classen.

The company also is a member of OIPA, IPAA, NGEAO, SPE, DEPA, The Nature Conservancy, and the Oklahoma City Chamber of Commerce.



From left to right: K. T. Meade, Jr., Virginia A. Meade, and James C. Meade.

MACKELLAR DRILLING CO.

MACKELLAR, INC.

MACKELLAR OIL CO. INC.

MACKELLAR SERVICES, INC.



MacKellar Drilling Company was incorporated in February 1956 by J. P. "Pete" MacKellar. The assets of the company consisted of one drilling rig, \$2,000 cash and \$100,000 note. Being of the optimistic mind, Pete quickly built the company up to three drilling rigs, no cash, and \$1,000,000 note.

In 1965, about the same time Liberty Bank was deciding that Pete's risk profile was getting to be a bit too risky, the East Kingfisher Layton Discovery was made with partners Southern Union and Pacific Natural Gas. Always a lover of equipment, when told of the huge discovery by the well site geologist, Pete's only comment was, "just listen to those engines run."

The drilling rigs were eventually sold off, but Pete's love of exploration and wildcatting continued. Notable discoveries included the Tuttle Gas Field (1971), Lucien Field, Noble Co. (1978), Southeast Perry Skinner Field (1985), and many more.

Today, MacKellar Companies continue to drill hydrocarbons. MacKellar, Inc., operates over eighty wells in Oklahoma. MacKellar Services, Inc., with six work-over/completion rigs and associated

equipment is also very active across the state. Empowering their many loyal employees has allowed the company to adapt to the ever-changing oil patch and they look forward to the next fifty-plus years in the energy industry. Pete's son, J. P. (Jim) MacKellar, Jr., is president and grandson, J. Bruce MacKellar is vice president.

MacKellar Inc. is located at 7100 North Classen Boulevard, Suite 100 in Oklahoma City, Oklahoma.



*Above: J. Bruce MacKellar and
J. P. (Jim) MacKellar, Jr.*

Below: J. P. (Pete) MacKellar.



APACHE CORPORATION

Apache Corporation was founded in 1954 by Truman Anderson, Raymond Plank, and Charles Arno—three World War II veterans fascinated by the opportunities offered by drilling for oil and gas. While the company was launched in Minnesota, its path to growth started in Oklahoma, and the state remains a critical element in Apache's global portfolio.

play across Roger Mills, Beckham, Washita, and Custer Counties. Apache has drilled or participated in more than 600 Red Fork wells with cumulative production of 1.3 trillion cubic feet.

The Mikles #1-10 discovery—a well targeting the deep Morrow—was completed in the shallower Granite Wash for 5 MMcf per day in 1980. Thirty vertical offsets were drilled and production from the prolific Merritt Field peaked at 100 MMcf per day in December 1985. This led to a deliberate focus on the Granite Wash that has become a recurring theme for Apache's success in the Anadarko Basin.

The story began a new chapter in 2009 with Apache's first horizontal Granite Wash well, the Hostetter #1-23H, which was drilled 12,500 feet vertical depth with a 4,000-foot lateral. After an eight-stage completion, the well was brought on production at 18 MMcf and 2,000 barrels of oil per day. In its first year, the Hostetter #1-23H produced approximately 2 billion cubic feet of gas and 100,000 barrels of oil, and it is expected to continue to produce for many years.

Today, Apache's Tulsa based Central Region is focused on utilizing horizontal drilling and multistage hydraulic fracturing—in a safe and environmentally responsible manner—to develop resources across a leading acreage position with stacked pays in the Anadarko Basin.

Acreage and technology are important elements to Apache success, but what set the company apart from its peers is its team—including 244 men and women in the Central Region. Apaches have embraced a culture that empowers employees at every level of the organization to make decisions and achieve the company's goals. At Apache, people have a sense of ownership and the knowledge that no matter who comes up with ideas, the best answers win.



Horizontal drilling and multistage hydraulic fracturing technologies have renewed Apache's oil and gas drilling program in the Granite Wash and other plays in the Anadarko Basin.

Apache's first producer, the Bradley-Rafferty #1, was drilled in the Cushing Field in Payne County about midway between Tulsa and Oklahoma City, and had an initial production rate of more than seven hundred barrels of oil from the Red Fork formation.

In 1977, Apache's North Block Acquisition gave the company a large swath of prime acreage in the Anadarko Basin; an area that few could have foreseen was to become one of the greatest natural gas plays in the nation's Mid Continent. That year, while exploring for deep Morrow, Apache completed the first Red Fork well in the deep portion of the basin. The Evans #1-30 came on production at 5 million cubic feet (MMcf) of natural gas per day and led to development of the Red Fork



PHOTOGRAPHS COURTESY OF ERIC DABNEY.



OIL & GAS SERVICES

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Looking north along Lincoln as oil rigs surround the Oklahoma State Capitol in the 1930s.

COURTESY OF THE WALTER M. SARTAIN, JR., COLLECTION, OKLAHOMA HISTORICAL SOCIETY.

SERVICE DRILLING CO.

EDWARD A. SMITH, SHERMAN E. SMITH, WILLIAM S. SMITH



Above: Ed A. Smith (center) with his parents, April 1898.

Right: Sherman (left) and Ed (right), a WWI veteran, at their family home before Sherman left for his service in WWII, February 3, 1944.

For three generations, the Smith family of Oklahoma—Ed, Sherman and Will—has epitomized the hard work and adventurous spirit that built the oil industry and made it the cornerstone of the state's economic vitality.

Many people enjoy the fruits of the Smith's business accomplishments today through the educational, health and cultural activities supported by The Sherman E. Smith Family Charitable Foundation.

The founder of the company business, Ed Smith, was born in 1895 in St. Louis, Missouri. He started in the oil fields as a roustabout with a long-handled shovel, which he called an 'idiot spoon'. He began his career in 1913 and worked in southeast Kansas until about 1917. He served two years in France during World War I, then came home and worked in the Oklahoma oil fields for others before going into business on his own in 1928.

Along the way he also found time to earn a degree in engineering and geology from the Missouri School of Mines and to work as an engineer for the City of Tulsa. In 1920, he married Gertrude Angeline Sherman and the couple moved to Bristow, Oklahoma.

By 1939, Ed was employed by Portable Drilling Company in Tulsa and eventually became an owner before the business was sold in 1947.

Service Drilling Company was organized by Smith and two investors—Ray Carter and William Guier—on August 31, 1947.

The company's first oil and gas company-owned producing well was drilled in late 1947 in the Carver A Block in Hutchinson County, Texas. The well was principally owned by Service, but Bill Clay and Ralph Peoples also owned an interest. The well was drilled with Clay's old steam rig, which was put in production in January 1948.



Service Drilling finished building its famed Rig #1 and took it to the field in 1948. It drilled its first well in Osage County for Kewanee Oil Company and then, after drilling several other wells in Oklahoma, Rig #1 was moved to the Texas Panhandle where it stayed the remainder of its working life. Rig #1 was later retired and served as Service Drilling's Safety Training Facility in Stinnett, Texas.

The company added a total of six rigs to its inventory between 1949 and 1951. During this period, two rigs were sent to Nebraska to drill in the Denver Jewelsberg Basin and Ed discovered the now famous Northwest Extension of the Naval Reserve Pool in Osage County.

More than a hundred oil wells of major importance were drilled on Osage Reservation and the Whitetail Pool north of Pawhuska, which had been dormant for twenty-five years, was revised.

To show their appreciation, the Osage Nation made Smith an honorary chief of the tribe and gave him the name *Ki-he-hah-nah-she*, which means "standing chief."

Asked by a newspaper reporter why he continued prospecting on the Osage Reservation after others had left, Ed replied, "You don't find oil on the sidewalks of Tulsa. You've got to get out in the brush. I didn't know any better than to drill there."

From the 1950s through the early 1970s, Service Drilling had three men who were essential to keeping the business alive during some very tough times. The three were Roy Reese, Dave Johnston and Jim Reed. All were of immense help to the company's survival in a highly volatile business.

Meanwhile, Ed and Gertrude's son, Sherman E. Smith, was beginning his career in the family business.



Sherman was born in 1923 in Rolla, Missouri, and was raised in Bristow, Oklahoma. He attended Oklahoma A&M College for two years before serving in the Army during World War II in France. He was in the 13th Airborne Division and was assigned to the 676 Glider Field Artillery Airborne Battalion, and went to jump school at Fort Benning, Georgia.

Before returning to school in 1946, Sherman worked as a roughneck in the Perkins Field for Portable Drilling Company. He graduated from Oklahoma A&M in 1948 with a degree in mechanical engineering and began his career as mud engineer for Baroid in the Lindsey Field.



Above: Gertrude Smith and OIPA President Ed Smith pose before the easels containing the names of the sixty convention sponsors, 1962.

Below: From company president, Ed A. Smith (right, rear) to roustabout, this group of production superintendents, tool dressers, mechanics, and office assistants photographed at the Service field office in Stinnett, Texas, typifies the skilled men and women who proudly say, "We work for Service", early 1950s.



Sherman joined Service Drilling in 1949 as a field employee in Borger, Texas. He worked his way up through the ranks and became chief operating officer in 1962 and president in 1972. He succeeded his father as chairman of the company in 1982.

Service Drilling was doing well until the drilling boom came to a crashing halt in the late 1950s. In 1963, after struggling for five years, Service was forced to sell some of its fifteen rigs at a public auction to get badly needed operating funds. At the time, oil was selling for \$3 to \$3.25 per barrel.

The company continued to struggle during the 1960s and at one time was down to only four operational rigs. Business began to turn around in the early 1970s and Service began to build its fleet once again.

The third generation of the Smith family, represented by Sherman and Mary Frances' son, William Sherman Smith, joined the company in 1975.

Will was born in 1952 in Borger, Texas. He was raised in Tulsa, Oklahoma, and graduated from Edison High School in Tulsa. Will graduated from Colorado College with a B.A. degree in business and then earned a master's degree from the American Business School of International Management in Glendale,

Arizona. During this time, he spent a semester in Japan as an exchange student at The International Institute of Studies and Training.

He began his Service Drilling career in 1975 learning drilling operation firsthand in the field. He later became vice president and was also in charge of Diamond-S Gas Systems. He worked with his grandfather for several years and alongside his father for twenty-eight years. Will was vice chairman of the board of SerDrilco, Inc., when the remaining companies were sold in 2003.

By the end of 1977, Service had fourteen operating rigs and business continued strong until 1985, when prices fell from \$22-\$24 a barrel to \$10-\$12 per barrel. Although conditions were rough for the industry in general, Service had been able to pay off debt and maintain a solvent position during the 1970s and 1980s.

The Smiths had been cautious about taking on debt while business was weak and thus was able to purchase a 12,000-foot rig in excellent condition for about 10 cents on the dollar. The company was also able to purchase many drilling components for future use.

During the 1990s, Service was once again able to add to its rigs and began to increase the depth to which it could drill. At the end of 1991, Service had eight operating rigs.

At about this same time, the Smith family decided it was time to reorganize the company into four components: SerDrilco, Inc., the parent company; Service Drilling Company Southwest, LLC, the drilling company; and Service Drilling Co., LLC, the original company. Service Drilling Southwest owned all the rigs, Service Drilling Co. owned all the production and Diamond-S Gas Systems, a gas gathering company, and SerDrilco, Inc. owned the three subsidiaries.

From the 1950s and on into the 1990s, the company founded by Ed continued to engage in oil and gas production and had an interest in several hundred wells. In 1997 the company sold its oil and gas production out of Service Drilling Co. and Diamond-S Gas Systems.



Left: Service drilling Rig #11, donated to Oklahoma History Center in Oklahoma City, Oklahoma, October 30, 2002.

Right: Service drilling Rig #1, retired in 1990 and re-rigged as a permanent hands-on safety training rig at the Stinnett, Texas, yard. Rig #1 was designed by Sherman while he was at Oklahoma A&M College, now Oklahoma State University, in Stillwater, Oklahoma.



With better times ahead for the oil industry, SerDrilco added three more rigs between 1997 and 2000, for a total of eleven rigs. Those rigs were capable of drilling to 17,000 or 18,000 feet, compared with the 8,000 to 12,000 feet range of the older drills.

In 2003, SerDrilco, Inc., and its subsidiary, Service Drilling Southwest LLC were sold to Unit Corporation in Tulsa.

Ed died in 1982 and Sherman died in 2011.

In addition to their success in the oil business, the Smith family believed deeply in giving back to the industry and to their community.

Ed was a founding father of the Oklahoma Independent Petroleum Association (OIPA) in 1955 and served as president of the association from 1961 to 1963. He was also a member of the American Association of Petroleum Geologists, Mid-Continent Oil & Gas Association and the Independent Petroleum Association.

Sherman was active in numerous civic and charitable organizations and served as a member of the board of governors of Oklahoma State University, and on the board of the Tulsa Air and Space Museum and Planetarium.

During his long career, Sherman was associated with many industry organizations as a member and/or director. These include the Energy Advocates, an organization committed to raising the level of public awareness on energy issues. He received the Energy Advocate of the Year Award from the International Energy Policy Conference in 2001 and again in 2004. He was also a lifetime member of the OIPA board of directors.

Two weeks after Sherman's death, Oklahoma State University began construction on the Sherman E. Smith Training Center, the school's indoor practice facility. Smith donated \$20 million to the school for the practice facility.

Sherman was a loyal supporter of many charitable organizations and engaged in fundraising efforts benefiting charities and causes locally and throughout Oklahoma and Texas. He supported Oklahoma State University and the University of Tulsa and was also a supporter of Frank Phillips College in Borger, Texas. He was also an avid supporter of the Tulsa Air and Space Museum and Planetarium and The Salvation Army.



Like his father, Ed, and his son, Will, Sherman was a leader, a philanthropist, a mentor, and a friend to all who knew him. Will and his sister, Susan Smith Burghart proudly carry on Sherman's legacy through his namesake foundation, The Sherman E. Smith Family Foundation, supporting educational, health, and cultural activities. The Foundation's interest is based in Oklahoma. It believes in the strength of community, and its stewardship is true to the spirit and intent of its founder.



Above: Fleet of twelve trucks, complete with CAT 955 forklift and all handling and rigging equipment. Service moved their rigs for over thirty years.

Below: August, 2001, Will and Sherman in the field inspecting Rig #17, Texas.



LUFKIN INDUSTRIES, INC.

During a proud history that dates from 1902, Lufkin Industries, Inc. (Lufkin) has grown from a small foundry and machine shop in Lufkin, Texas, to a global industry leader in quality oilfield equipment and power transmission products.

The five ambitious men who established the Lufkin Foundry and Machine Company as a repair shop and parts supply house for the local sawmills of the East Texas lumber industry were rugged, hard-driving businessmen who were always open to improving products and exploring new opportunities. J. H. Kurth, Frank Kavanaugh, Sr., Frank Kavanaugh, Jr., Eli Weiner, and Simon Henderson might be surprised at the evolution of the company's products—from parts supply to a diverse range of engineered products, but it is doubtful they would be surprised at the company's success.

Lufkin Foundry and Machine evolved to manufacture railroad and sawmill equipment during the early years of the twentieth century and then expanded into the oil industry by pioneering oilfield pumping units in the 1920s. This technology was developed when a young inventor, W. C. Trout, joined the company as a shareholder and led the diversification of the shop from equipment repair to production and sales. In 1926, Trout patented a design for the counter-balanced pumping unit that became the worldwide standard in the oil and gas industry and contributed significantly to the success of that industry in Oklahoma and Texas.

Trout, who eventually held more than thirty patents for his innovative designs, served as president of Lufkin from 1931 to 1947, a period of tremendous growth for the company. A new era began at Lufkin Foundry and Machine Company when William Walter Trout, Sr., became the third president of the company. He was a different kind of leader from his father and J. H. Kurth, Sr., the company's first two presidents. His managerial strength was in his ability to empower his talented employees.

The times and the company were different during Trout, Sr.'s, years as president. No longer was Lufkin Foundry a small repair shop for sawmill and locomotive equipment. The early days of developing the pumping unit were past, and the company was an established manufacturer of oilfield pumping units. Diversification had begun and Trout, Sr., would lead the company to even greater diversification and growth. In 1939, Lufkin entered both the truck trailer market and industrial gearing that specialized in the design and manufacture of enclosed gear drives for industrial applications. The company now operated three business divisions: Oilfield, Power Transmission, and Trailer.

In 1970, Lufkin Foundry and Machine Company changed its name to Lufkin Industries, Inc. In the 1980s, Lufkin relied on its history of quality and performance to weather the times. A major capital expansion in gears was accomplished during this time to ready Lufkin for the next up cycle in the early 1990s.



During the late 1990s, Lufkin began to expand its Oilfield Division through the acquisitions of Fannie Lee Mitchell, an oilfield services firm, in 1997 and Lone Star, an oilfield machine shop, in 1998. These acquisitions allowed Lufkin to significantly extend their oilfield services locations domestically with strategic locations across the United States to address the needs of clients in the field.

Nabla was acquired in 1997 and Delta-X was acquired in 1998. These acquisitions united to form Lufkin's Automation solutions for rod lift, injection wells, progressing cavity pumps, and plunger lift. The associated SROD and DIAG software packages were combined to become the leading well analysis and diagnostic tools for rod lift.

Also in 1998, the Power Transmission Division expanded its presence and expertise with the acquisition of Comelor, located in Fougerolles, France. Comelor, now known as Lufkin France, has an established reputation in a wide range of industries as a gear manufacturer.

In 2002, Lufkin Industries, Inc., celebrated one hundred years, a full century, of business. The company that started out manufacturing railroad and sawmill equipment in their own foundry had evolved into a highly technical firm providing engineered products in three main Divisions: Oilfield, Power Transmission, and Trailers. The company maintained their historic roots and original foundry in Lufkin, Texas, while operating in a global environment. The rugged, hard-driving spirit of Lufkin's founders had developed into highly educated and technologically focused leadership that retained the hundred-year-old principles of continuously improving products and exploring new opportunities.

Lufkin embarked on a plan of growth through acquisition and reorganization in the later part of the decade. In 2009 the Power Transmission Division again expanded with the acquisition of Rotating Machinery Technology (RMT), which provided entry into the custom-engineered turbo-machinery industry. International Lift Systems (ILS) was the second acquisition of 2009 and increased the Oilfield Division's market share in the artificial lift industry by providing gas lift, plunger lift and completion equipment to



Lufkin's product portfolio. It was during 2009, that Lufkin's management decided to close the Trailer Division to allow for greater manufacturing capacity for the remaining two divisions.



Lufkin Hydraulic Lift (LHL) was also acquired in 2010 under the Oilfield Division. LHL brought innovative surface hydraulic lift pumps to the Lufkin portfolio. During 2010 the company also began constructing an eighty-two acre, \$126-million manufacturing facility in Ploiesti, Romania.

The ILS product line was further expanded along with Lufkin's artificial lift market share in 2011 with the acquisition of Pentagon Optimization Services (Pentagon). The acquisition brought the Angel Downhole Pump, a low-cost and effective way to work pressure-depleted gas wells, high gas-liquid ratio oil wells, and 'non-pumpable' horizontal plays.

In late 2011, Quinn's Oilfield Supply Ltd. (Quinn's) was acquired to bring downhole reciprocating pumps for rod lift applications and GrenCo's Progressing Cavity Pumps (PCP) under the Lufkin umbrella. As a Canadian company, Quinn's also enabled Lufkin to strengthen its manufacturing presence in the Canadian market. The combination paired Lufkin's strong position in surface rod lift systems with one of the leading providers of downhole rod lift pumps.

In the decade since Lufkin celebrated their centennial anniversary, the company initiated aggressive organic growth, adapted to the unprecedented shifts in market focus and managed a strategic acquisition growth plan focused on revenue growth and further expansion of the global customer support network at the end of 2011.

Today, Lufkin Industries, Inc., is a vertically integrated company that designs, engineers, manufactures, sells, installs and services high

value-added oilfield equipment and power transmission products around the world and is a recognized leader of innovation and quality.

Lufkin's Power Transmission Division manufactures precision-made gears in weights from 300 pounds to 250 tons and in power levels from 20 to 85,000 horsepower. These highly engineered industrial products are applied in a variety of industries, such as oil and gas, petrochemical, steel and aluminum mills, plastics mixing and extrusion, sugar mills, rubber mills, marine propulsion, cement mills, mining and power generation.

The Oilfield Division has earned global recognition as a leader in artificial lift solutions. The types of rod lift offered include: conventional, Mark II, beam-balanced, air-balanced, reverse-mark, low-profile, slant-hole, conventional portable, and its latest, hydraulic. Lufkin's success in the world's market for artificial lift has been achieved in part by proprietary metallurgy executed in the foundry, which is still located in Lufkin, Texas. Additional success was accomplished through production engineering, which utilizes a complex system of machining cells and conveyor systems for mechanical handling. The resulting solutions are highly engineered and extremely durable for harsh surface environments, increasingly demanding downhole conditions while reliably delivering the highest level of fluid production. The Division also includes: parts and service along with gas lift, plunger lift, HSP, PCP and automation.

Headquartered in Lufkin, Texas, Lufkin Industries, Inc., had grown to more than four thousand people worldwide by the end of 2011. With more than a century of experience, Lufkin is recognized as a leading supplier of oilfield artificial lift solutions, industrial gears and foundry castings with an unwavering commitment to: employ the most technically innovative people; provide the highest quality equipment and service for our customers; support the communities in which we operate; and generate attractive financial returns for our shareholders.

MILLS WELL SERVICE

The company that evolved into Mills Well Service was established in April 1946 when Joe Mills returned home from serving with General George Patton's troops during World War II. Along with his father-in-law's brother, Frank Newsom, Joe formed Newsom Mills Drilling Company in the booming oilfield town of Seminole, Oklahoma.

The new company provided cable tool rigs for the major oil companies operating in central Oklahoma, but this was not exactly the business Joe expected to enter following the war. Both he and his brother, Roger, had civil engineering degrees and had planned to go into business together when they returned from Europe. Tragically, Roger was killed during the Battle of the Bulge.

Fortunately, Joe's uncle, Frank, was already an oil man and had connections with several major oil companies. In early 1946 the two reached an agreement to enter the service side of the oil industry.



The firm prospered and Newsom Mills eventually acquired six Cardwell spudders and one Walker-neer. By 1955, however, the days of open-hole completions demanding massive clean outs and requiring cable tool rigs was at an end.

In 1956, Joe bought out Frank's interest in the business and decided to change the company's direction. He began trading off cable tool rigs for pole type well servicing

rigs and took delivery of two new Cardinal pulling units which cost \$35,000 each, including tubing tongs.

Competition was stiff in the Seminole area but Mills had an advantage his competitors lacked. He was the first contractor to provide hydraulic tubing tongs. In 1957, Joe changed the name of the company to Joe Mills Well Service and continued to trade in spudders for pulling units.

Imported oil drove down prices and work slowed in the 1960s. Many of Joe's competitors fell by the wayside but Joe survived and was able to hire the best hands from his former competitors.

Business rebounded in the 1970s and well servicing technology and equipment changed and improved. Joe began buying much faster derrick type rigs that could hang rods in triples and stand tubing in doubles.

Also in the 1970s, Joe's son, Roger, decided to join the company instead of attending medical school. Although he had been around the oil fields all his life, he soon found he had much to learn.

Although the 1980s brought more growth to the company, Joe never wanted to become a big contractor—only the best. He passed away in 1990 and is remembered for knowing a good man when he saw one. He built a wonderful company because of tremendous employees and the atmosphere was like a one big family.

Since Roger took over, the company has grown to twenty rigs that work throughout the eastern half of Oklahoma and the name has been changed to Mills Well Service. Like Joe, Roger knows his employees are his greatest asset and, with more than a hundred employees, Mills Well Service has a serious financial impact on the town of Seminole.

Looking to the future, Roger sees both challenges and bountiful opportunities in the oil industry and looks forward to meeting the challenges and growing with the opportunities.



Above: Roger with his father Joe Mills.

ONEOK



Above: Oklahoma Natural Gas Company constructed the 96-mile A-1000 pipeline in just 80 days. Beginning operation in December 1942, the pipeline eased concerns about the winter gas supply.

Below: The use of television to reach as many homes as possible continued from the 1950s through the 1970s. Cooking show hosts usually selected a menu to demonstrate cooking with an oven, broiler and surface unit.

Founded more than a century ago as Oklahoma Natural Gas Company, today ONEOK is one of the nation's premier energy companies involved in the natural gas and natural gas liquids businesses, providing safe, reliable energy and services to its customers.

Oklahoma Natural Gas Company started in 1906 as a small intrastate natural gas pipeline company operating between Tulsa and Oklahoma City. By 1922 the company had more than 1,000 miles of pipelines supplying natural gas to 65,000 customers in 43 communities.

In 1926, Oklahoma Natural Gas Company moved its headquarters from Oklahoma City to Tulsa, then known as the "oil capital of the world." In 1928, construction was completed on its new headquarters—one of the first art deco buildings in the city that would be its home for nearly sixty years.

The 1950s were a prosperous time for the company. After stock splits and increasing

value for shares, the company was listed on the New York Stock Exchange for the first time in 1954. As part of its strategy, the company reached out to potential customers through television advertising and demonstrations, hosting cooking shows on local TV stations highlighting the benefits of natural gas use in the home.

By the late 1970s the demand for natural gas had skyrocketed. The industry landscape was changing, and Oklahoma Natural Gas was evolving with it. The company changed its corporate name to ONEOK, Inc. (NYSE:OKE) in December 1980. Within the first year under the ONEOK umbrella, the company reached a milestone as its total operating revenues for the year surpassed \$1 billion.

In 1984 the company moved into a new building in downtown Tulsa. ONEOK Plaza remains the company's headquarters. A new office building was not ONEOK's only venture. The company also expanded its interests in the natural gas market, focusing on the construction of new pipelines.

Broadening its reach, ONEOK acquired Kansas Gas Service, a natural gas utility, in 1997, giving it access to more than two-thirds of the state's natural gas customers, including the Kansas City, Wichita and Topeka markets.

ONEOK's growth continued in 1999 with the purchase of Koch Industries' Oklahoma natural gas gathering and processing assets. A year later, two additional acquisitions further expanded the company's midstream capabilities—one from Dynegy, Inc. and one from Kinder Morgan. In these transactions, ONEOK gained more than a dozen natural gas processing plants, almost 20,000 miles of natural gas transmission and gathering lines and more than 10 billion cubic feet of natural gas storage capacity.



With the purchase of Texas Gas Service in 2003, ONEOK became one of the largest natural gas distributors in the country. Today, ONEOK serves approximately 2 million customers in Kansas, Oklahoma and Texas through its three natural gas distribution companies.



In 2005, the company purchased Koch Industries' natural gas liquids (NGL) business. The move solidified ONEOK's position as one of the nation's premier energy companies and opened the door to a new area of the midstream business and growth—natural gas liquids.

In 2006, ONEOK completed a \$3-billion transaction becoming the sole general partner of what would become ONEOK Partners (NYSE:OKS), one of the largest publicly traded master limited partnerships in the country, and sold its natural gas gathering and processing, natural gas liquids and pipelines, and storage businesses to the partnership in return for cash and units. ONEOK Partners operates in three business segments—natural gas gathering and processing, natural gas pipelines, and natural gas liquids.

Between 2006 and 2009, ONEOK Partners invested more than \$2 billion for projects that significantly increased its operating footprint and enhanced its midstream capabilities.

Then, in 2010, ONEOK Partners announced another round of growth projects—investing approximately \$3 billion for projects in its natural gas gathering and processing, and natural gas liquids business segments.

Today, ONEOK consists of three natural gas utilities, a leading natural gas marketing company and is general partner and 42.8 percent owner of ONEOK Partners.

As it has grown from a single natural gas distributor in Oklahoma to a *Fortune* 500 industry leader, ONEOK has remained committed to creating value for its employees, customers, shareholders and communities. Despite this unprecedented growth, its core values—ethics, quality, diversity, value, and service—still define the company and how it works.

ONEOK has a long and rich history of giving back to communities where it operates and its nearly five thousand employees work and live. By investing in programs that align with its values, ONEOK supports education, helps families in need and enhances the quality of life in these communities. From corporate gifts to energy-assistance programs to generous donations of time and money by its employees, ONEOK is making a positive difference.

ONEOK is well-positioned for the future—committed to sound business practices, operating safely and environmentally responsibly, and providing quality products and services to its customers. That is ONEOK, the ONE in Energy.



Left: Completed in 1984, ONEOK Plaza, ONEOK's 17-story, 495,000-square-foot headquarters in the heart of downtown Tulsa, houses the offices of more than 900 employees.

Below: From 2006 to 2009, ONEOK Partners invested more than \$2 billion for internally generated growth projects in its natural gas liquids and natural gas pipelines business segments. Completed in 2009, the Arbuckle Pipeline, a 440-mile natural gas liquids pipeline extending from southern Oklahoma to Mont Belvieu, Texas, on the Gulf Coast, was part of this three-year growth program.

WINTER MUD COMPANY



Don's oldest son, Don Ray Winter, officially began his mud career in 1978 by attending chemical school in Greeley, Colorado. However, Don Ray's practical training had begun years before when he rode with his father as a young boy, learning lessons that can only be learned at the rig site.

Winter Mud Company, a family-owned drilling fluid business, has operated in Southwest Kansas and Oklahoma and the Texas Panhandle for decades. No one can match Winter Mud's depth of knowledge and experience when it comes to designing a mud program/mud system to meet the customer's drilling needs.

Winter Mud Company of Guymon, Oklahoma, was founded in 1982. However, one of the cofounders, Don A. Winter, started running mud in the Panhandle area decades earlier. Don was a vital part of Winter Mud through the end of 2008 when he celebrated his eightieth birthday.

Don started his career in the mud business with National Mud Co. of Oklahoma City in 1956. He joined United Mud of Borger, Texas, in 1957 and continued with them until 1959. In those days, Don worked from his personal auto and had no way of contacting people directly from the rig. He would often check eight or nine rigs a day and once wore out a set of tires in one month.

Don then started Fluid Mud Services in 1959 and operated it until the tragic death of his business partner in 1961. Resulting legal issues forced liquidation of the company's assets and Don moved to the Permian Basin where he worked for Lone Star Mud Company. He returned to the Panhandle in 1963 and became a part owner of Agent Mud and Chemical Company until 1981.

"One of the first times I went out to check mud, my dad sent me to a Zenith drilling rig with Dodge Wilson as the pusher," Don Ray recalls. "I went out to hang the spud report and asked Dodge when they were going to spud. His reply was 'about two hundred feet ago.' After six holes in a row with him I felt like I had been officially introduced to the oil field. Dodge knew I was a worm and needed to learn that the time to hang a spud report was before the drilling started.



"Another lesson I learned early on that has stuck with me was compliments of Sam Doty, drilling superintendent with Bravo Drilling,"



Above: Don (bottom right corner) and the rig hands in the early years.

Right: Don checking mud samples out of the trunk of his car.

Don Ray continues. "I was driving to the rig to meet Sam and while driving down the lease road I came upon a muddy hole and went off the lease road to get around it. It didn't matter that everybody else does it; I was the one that got caught. That was my first 'butt chewin' and because of that I still—to this day—do not get off the lease road when driving to a rig."



The father and son team of Don and Don Ray Winter founded Winter Mud Company in Guymon in 1982. Over the years, Winter Mud has grown to become a leading drilling fluid company in the Southwest Kansas and Oklahoma/Texas Panhandle region.

Drilling, Shamrock, Mobile, Union Oil of California, Edwin L. Cox, Baker & Taylor, and Cities Service, to name just a few.

Currently, Winter Mud's staff includes five mud engineers, an office staff of three, a sales staff, a mud plant operation and a trucking business. Winter Mud engineers have attended mud schools, directional drilling schools, BOP schools, and horizontal schools, and continue to seek the latest in drilling fluid technology and information.



Above: Don Ray (right) and Greg at the rig with their dad.

Left: Don Ray and Don.



Winter Mud started in business during a tremendous slow down in the oil business but managed to survive and grow. The company started with two mud engineers and worked up to as many as fourteen employees through the years. In the early years, the company averaged 40 to 45 wells per year; in its best year, Winter Mud worked 445 wells.

Winter Mud has run mud for some of the giants in the oil business, including Shell Oil, Texaco, Phillips, Anadarko, Sinclair, Unit

ice and customer satisfaction. Customers are impressed by Winter Mud's professionalism when it comes to running mud, and the way in which they are treated by each employee.

Winter Mud employees are true professionals and when an engineer is assigned to your rig, you will work with that engineer from spud to TD.

Winter Mud is headquartered at 102 South East Street in Guymon, Oklahoma. For more information about the company, check their website at www.wintermud.com.

BEST OILFIELD SERVICE, INC.

Founded by Steve Williams and Rick Gulley, Best Oilfield Service has provided oilfield construction and maintenance since its opening on September 15, 1992, in El Reno. From its humble beginnings with just two employees and one borrowed truck, the company has flourished throughout its twenty years in the business and now includes 42 employees, 21 trucks, numerous trailers, motor graders, backhoes, dozers, steamers, trackhoes, and loaders.

As the legend of so many great Oklahoma stories will testify to, the company itself was born out of difficult circumstances. Steve had just lost his job with a roustabout company and met with friends on the same evening to decide what to do next. Steve and Rick hired Julia Smith as their office manager and they were up and running.

Steve recalls the moment: "We just made up a name and went for it. The banks would

not loan us any money and I didn't have any, so I took my last paycheck, borrowed a truck, got insurance, took out credit for fuel and received lots of help from several companies we had previously worked for in other jobs. These five companies gave us so much work in those early days that we were working seven days a week for three months straight. I finally had to tell them we needed a day of rest."

As the men began to receive requests for work in the field, they knew that having the right equipment was a necessity, but expensive. "We went to look at our first backhoe and Rick ran it and dug with it to make sure it was in good working order. It cost us \$6,000 and we bought it right there on the spot, but all I can remember of the experience is not being able to sleep that night for fear of how we were going to pay for it," recalls Steve.



Oilfield Park stands at the entrance to the Oklahoma History Center in Oklahoma City.



Steve and Rick had rented a small yard near the railroad tracks in El Reno to store their equipment but quickly outgrew the site and began renting a new lot, which they bought a year later and own today. Julia remained hard at work in the office as she single-handedly completed every purchase order by hand and fielded calls from companies across the area who was clamoring for the company's growing list of services.

Today, Steve looks back over the past two decades in business with great enthusiasm and honors the people around him who he sees as the strength of the company in twenty-first century. He writes, "Rick Gulley has been here since the first day and we have worked together for thirty years. We grew up together and there is not a better partner a man could ever ask for. He has done everything to make this company what it is today. Julia Smith has been our office

manager for the past twenty years and if it wasn't for her dedication and hard work, this company would not be as efficient as it is today. She is as much a part of this company as anyone here. The guys that work in the field for us, they are as important to this company as the rest of us. They all do first class work and I am thankful to have them. They include Don, Julian Rudy, Louis, Adrian, Antonio, Joe, Jarod, Gary, Luke, Michael, Jordon, Lorenzo, Kevin, Bill, Max, John, Jose, Ramon, Josh, Jim, Brandon, David, Raul, Isaiah, Alfredo, Misel, Donnie, and Angie."

The company remains active in the communities in which it serves and provides support to local schools and is a proud supporter of the Shriner Circus.

Best Oilfield Service, Inc., is located in El Reno at 1901 East Highway 66 and can be contacted at 405-262-5060.



DEAN'S CASING SERVICE



Founded in 1981 as Holdenville Power Tongs, the name was officially changed in 1990 to Dean's Casing Service. The company provides installation and retrieval services for power tongs, torque turns, casing running tools, mud fill tool lay down machines and casing jacks.



idea to go into the casing running business. "I had no money, but had a friend that was willing to help sponsor this adventure if I would take his twenty-year-old son, James Welch, as a partner."



The company was originally founded by Dean Goforta and James Welch. Other key employees over the years include Jimmy Shed, Debra Boyd, Carl Griggs, Mike Grove, and Ron Baxter. Dean relates how it all started. "I was rough necking and decided to buy a gas station." After about a year and missing the oil patch, he came up with the

Following the slowdown in the late 1980s, employees from the company traveled to Tuscaloosa, Alabama in 1990 to work the Talladega Forest area. In 1992 a field opened up in Limon, Colorado. Work picked up in 1993, when a twenty-three well package opened up in Texas, along with Murphy Braden and Red Cloud Drilling to work for Comstock. This work led to other customers including Boone Pickens-Mesa Petroleum.



Dean's Casing Service currently employs approximately ninety people with offices located in Holdenville, Oklahoma; Russellville, Arkansas, and Towanda, Pennsylvania.

The company is also active in community services including sponsoring several of the local children's sports activities, the Fall Festival Car Show, and a World Champion Pro-Stock Drag Racing team.

A Casing Hand's Life

He awakes at the slightest sound
No matter the time of night
Just waiting for the phone to ring
Ready to lace his boots up tight
As the sleep starts to set
And his mind drifts away
In comes that phone call
He's been waiting on all day
On the other end of the line
It's the familiar scratchy voice
Telling him it's time
Which means he has no choice
As he stumbles out of bed
And starts to gather his thoughts
He tells himself it's worth it
The fights that he's fought

All the blood, sweat, and tears
Shed along the way
Wondering if it's noticed
How much Attention do they pay
Countless nights as he goes unrested
And Back to back he goes
Trying to prove it's not just talk
But his walk that really shows
He walks around with heavy shoulders
Or maybe it's just strife
But that's the swag you get
Living a Casing hand's life.

In loving memory of Jackson Fox

April 17, 1972-July 5, 2011

"Like a New Copper Penny"

—Chris Gentry



B.O.P. RAM & IRON RENTAL, INC.

B.O.P. Ram & Iron Rental, Inc., (Ram) is a service and rental company specializing in pressure control equipment. The company's core service is the "nipple up" test and "nipple down" of the blowout preventer stacks (BOP) on rotary land drilling and well service rigs. This service generates opportunities for equipment rentals of BOP's, rams, closing units, spools, crosses, and adaptors of various sizes and pressure specifications.



The company was founded by Doug and Sammie Villines in 1988. They worked very hard answering customer calls 24/7 for more than fifteen years. Doug invented and patented the winch lift system used by Ram, and the oil industry as a whole. His invention was, and is considered, an important safety breakthrough in the business.

Equipment used for Ram services includes a test truck equipped with a "stack lift," and test unit. The stack lift is a specially designed set of hydraulically powered winches. The stack lift sits on the rig floor and enables the technician to position the BOP stack where it can be secured to the wellhead. The nipple up is performed by running bolts through two mating flanges, and torquing the bolts to spec. After the stack is nipped up, it is pressure tested and the test results are provided to the oil company supervisor.

Providing the nipple up service enables Ram to obtain rental income for its extensive inventory of equipment. The extensive inventory is due to the many variations of sizes,

pressure specs and fittings of equipment required to drill and complete a well. Ram has the most extensive inventory of this type of equipment in its market area.

Ram's primary services area covers a two-hundred-mile radius in Oklahoma and the Texas Panhandle, with facilities in Weatherford, Oklahoma. Ram opened its second office in Kilgore, Texas, and covers a two-hundred-mile radius in East Texas and Louisiana. The company's yard is centered in the Granite Wash development play. Ram services many major oil and gas explorations companies such as Chesapeake, Devon, Newfield, Cimarex, and Apache.

The addition of the East Texas yard in Kilgore was influenced by the customers' need for more equipment in the Haynesville gas play. This area continues to see growth due to the recent spike in oil prices, with new developments in the region. The service area of this yard covers East Texas and Louisiana.

Teamed with experienced employees, Ram management oversees approximately two hundred employees. Their field operations and rentals are supported by twenty-seven stack lift trucks, five gin trucks, and a fleet of forklift and delivery trucks. All drivers are DOT licensed and safety trained.

The stack lift trucks are fully equipped with two hydraulically operated wire line lift winches, wire line clamps, and hammer wrenches. All necessary hydraulic power for the winches, torque wrenches and pressure functions are mounted on the truck. This equipment is required to connect a vertical assembly of BOP's, spools, crosses, and valves referred to as a stack. The stack lift method was a safety breakthrough and has become a standard of the industry.

The gin pole truck performs the task of loading and off-loading the blow out equipment from the trailers. At the rental site they place the equipment near the drilling rig for attachment to the stack lift winches. After the rental periods, the trucks reload rental equipment and transport back to the yards.

Ram is proud of its health, safety, and environmental program with two safety managers who together bring more than thirty years of experience. Mandated training programs are required along with instructional brochures

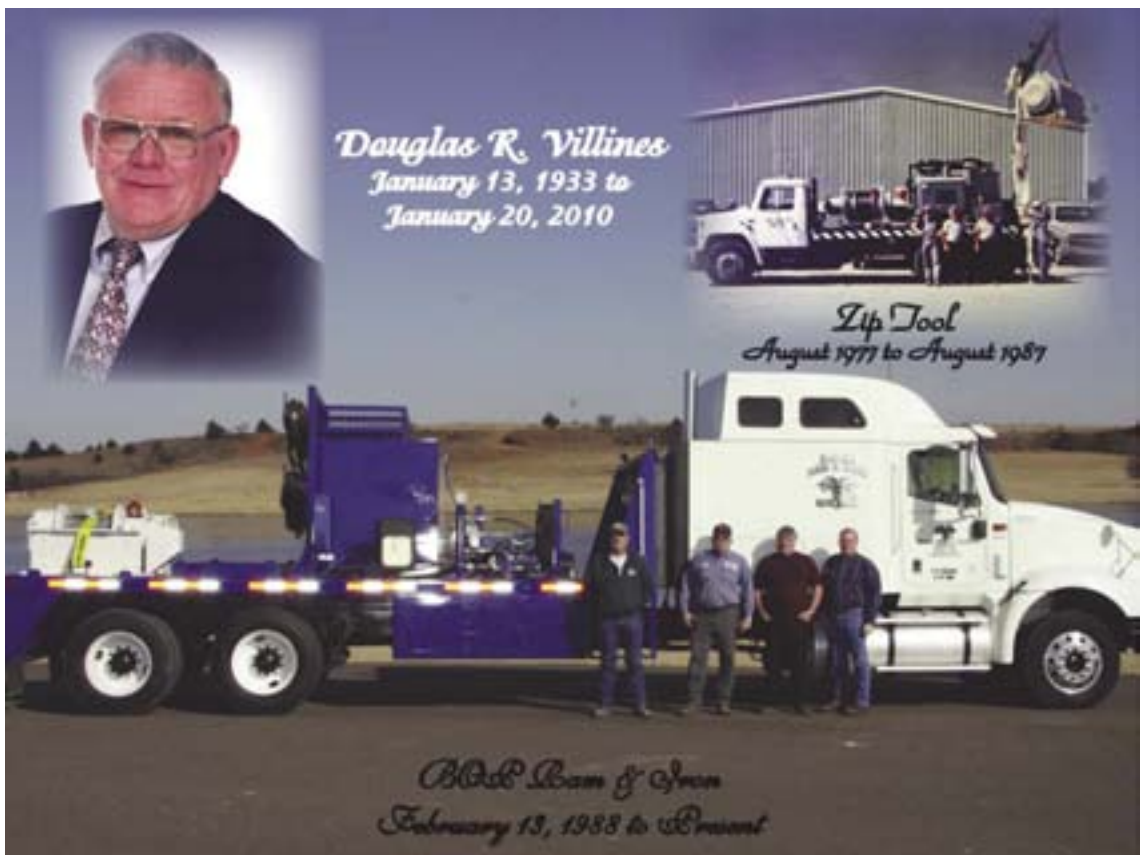
and training videos. Ram follows all OSHA guidelines and requirements. Reporting with ISNetworld.com and PECPremier.com prove Ram's reliability and dedication to a safe and healthy working environment. With regularly scheduled safety meetings, all of these factors have reduced accidents and increased safety awareness.

For the future Ram intends to capitalize on its extensive rental equipment to increase revenue, and has stepped up its hiring program to add to the current workforce. Ram's recovery from the slow down of 2009 and rapid growth into 2011 resulted from its ability and determination to retain experienced workers. Consideration has also been given to further geographic expansion because of increased demands in both locations. With the increased exploration activity in liquids rich Western

Oklahoma and the Texas Panhandle, Ram will continue to provide first rate service to new customers as well as its existing customer base.

Doug Villines was recognized many times over the years for his charitable activities and community involvement. He received the 2003 Distinguished Service Award by the Weatherford Rotary Club. He was inducted into the Weatherford Hall of Fame, for recognition of a native or resident who has contributed significantly to the positive growth of the community. He received an honor from the State of Oklahoma legislature for being a generous benefactor in the State of Oklahoma.

B.O.P. Ram & Iron Rental, Inc.'s main office is located at 717 South Custer Street in Weatherford, Oklahoma. For more information or to contact a company representative call (580) 772-0250.



FRED'S RAT HOLE SERVICE



Above: (From left to right) son-in-law Mark Holden, Freddie Slay, Fred Davis, Sr., Mike Davis, and Willie Rushing, Jr.

This photograph of the crew's new rig was taken around 1982.

Below: Fred Davis, Sr., and son, Mike with a new rig, c. 1982.

Fred Davis, Sr., of Fred's Rat Hole Service in Lindsay was born and raised in Missouri. He served in the Navy during World War II and later took a job selling insurance in Tulsa. His children do not know what originally brought him to Tulsa, but perhaps it was destiny because it was in Tulsa that he met and married his wife Mary in 1951.

By the late 1950s, Fred decided to make a complete change in careers. He and his brother both obtained jobs working for Martin's Rat Hole Service in Enid. It was while he was with Martin's that he moved his family to Lindsay. He remained with the company until approximately 1968 when he briefly went to work for Dwyer Rat Hole.



In 1969, Fred struck out on his own and formed Fred's Rat Hole Service of Lindsay.

Today, Fred's son, Mike Davis, Sr., runs the company and says the business has weathered all the booms and busts of the industry. They began with one rig and Fred, Sr., and his sons, Fred, Jr., and Mike, made a trip to California to look for a rat hole digger. They found one in Hobbs, New Mexico, and brought it back to Oklahoma. At that time the company consisted of Fred, Sr., and one other employee. They added another rig in the 1970s. Then in 1980 they bought still another. In 1981 they bought their fourth rig and in 1982 they added a fifth.

By the mid-1980s, and before the big bust of that era, the company had grown to 14 employees and 3 secretaries, in addition to Fred and his 3 sons and 2 sons-in-law. With the advent of the bust, the company downsized but remained in business. Mike, Sr., went into trucking where he remained for ten years. Fred, Jr., passed away in 1985 and his son, Jeff, and sons-in-law, Mark Holden and Mike Rushing, moved on to other jobs.

In 1999 the company was still operating, but Fred, Sr., had a stroke and Mike returned home and parked his truck for what he thought would be a temporary couple of weeks to show the one remaining employee how to operate some equipment. "Temporary" turned into permanent and Mike soon took over the management of the business.

The company now operates four rigs and services wells across Oklahoma and into the Texas Panhandle, North Texas, southern Arkansas, and Kansas. Many of their present day customers, like L. E. Jones, have been with them since the beginning of their business and Mike attributes much of their success to the loyalty of these long term customers. The business now includes 10 field employees, 2 full-time secretaries and 1 part-time secretary.

Fred, Sr., passed away in 2008 at the age of eighty-one. His wife Mary still lives in Lindsay in her home, which is located in the

middle of the company buildings. Mike continues to manage the business and daughter Shari Rushing is the office manager. Mike's son, Mike, Jr., is also a part of the business and runs one of the rigs. Shari's daughter, Amanda Rushing also works in the office, now making it a third generation company. Jeff and son-in-law Mark Holden continue to work for Woods Pumping Service where they went during the 1980s bust.



The family is sure that they have a strong place in the oil and gas industry of today and look forward to many more successful years.

Fred's Rat Hole Service, Inc. is located at 211 Northeast Third Street in Lindsay, Oklahoma.



Below: Crews construct an oil storage tank in the Cushing Fields in the 1910s.

DEVON/DUNNING PETROLEUM INDUSTRY COLLECTION,
PHOTOGRAPH COURTESY OF THE OKLAHOMA
HISTORICAL SOCIETY.



J. SCOTT INC.

When J. Scott Inc. Drilling Mud Disposal officially opened for business in the late 1990s, it was the culmination of the dreams and determination of Jack C. Scott, his wife Mary, and their son Rick Feilberg. Mary joined Jack as they traveled to the University of Oklahoma's Geology Department and researched the ability of their own land to hold used drilling mud. They discovered that their land, with its several hundred feet of deep red clay, was perfect for such a venture.



Above: Jack and Mary Scott.

Below: Left and right, aerial photographs of J. Scott Inc. showing the Scott's ranch home on the far right and the business offices on the far left.

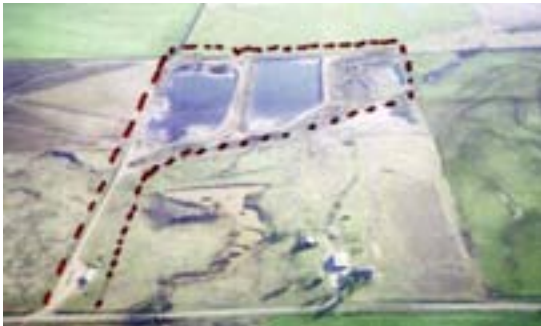
The family poured two years into diligently researching the engineering and financing that would be required to prepare their land and obtain equipment, research and write a feasibility study and a business plan for a working facility to legally dispose of the oil field drilling mud and water, so that the

Oklahoma water supply would be protected. With their homework complete, Jack's thirty years of experience in business and real estate encouraged the family "team" that this was the time to act.

Obtaining the necessary Oklahoma Corporation Commission order to operate the said drilling mud disposal business proved to be challenging. They went through protest hearings, and proving up on engineering plans and compliances proved to be more challenging than getting a building permit in California, with their stringent environmental laws.

Though they had excellent credit and their land was completely paid for, several banks turned down the Scotts' request for a start-up loan; lenders thought the proposed business was environmentally risky. However, to open the roads that had to be built, permit costs and construction of their first ten-acre lagoon to dispose of water-based drilling mud, the Scotts had to dig into their retirement funds and credit cards to build the roads and holding pits and get an office building and machinery to operate. They built it out of their pocket.

Later, in 2006 and 2007, J. Scott Inc. devised an innovation to process and recycle oil-base mud. After careful guidance from their engineer and lawyer, the Oklahoma Corporation Commission granted an order for them to process and recycle oil-base drilling mud. By 2009 and 2010, this innovation provided additional profits and was a much needed service for the Oklahoma oil and gas drilling industry. The family created this company literally "from the ground up."



When J. Scott Inc. opened its gates for business in February 1997, oil had just dropped to a painful \$11 per barrel and drilling slowed to a crawl. The company weathered the experience and carefully grew its customer base.



Through unwavering perseverance and an old-fashioned work ethic, J. Scott Inc. Drilling Mud Disposal slowly established itself in the industry with the help of several “very good people” including Wiley N. Cook & Associates, Professional Engineer and Regulatory Compliance, the late Barth P. Walker, a knowledgeable attorney who knew this industry well, and the president of local Bank of Union, John Shelley, whose vast knowledge of the oil business helped the Scotts obtain financing for operation and expansion all the way into the twenty-first century.

By 2007, oil and gas drilling was gaining momentum in the area and for J. Scott Inc. each year proved more profitable than the year before. By 2011, the steadfast growth of the company caught the attention of R360 Environmental Solutions, a fast-growing Houston, Texas-based

company operating twenty-four E&P waste disposal facilities in several states including Texas, Louisiana, New Mexico, and Wyoming. J. Scott Inc. Drilling Mud Disposal was sold to R360 on July 25, 2011. With the sale, the Scott’s son, Rick Feilberg, secured a management position with R360 and all eleven employees remained on the job with their new employer.

Jack and Mary have now retired and established a foundation through which they continue to provide money to churches, missionaries, schools, and children and families in need. Jack has remained a lifelong contributor to a variety of community activities and organizations and has served on the Canadian County Excise and Equalization Board, Canadian County Industrial Authority, Canadian County Flood Control Board, Canadian County Mineral Owners Association, El Reno Airport Zoning Committee, and has served on the board of directors of Youth and Family Services.

J. Scott Inc., an R360 Environmental Solutions company, remains today at 12000 Reuter Road West, ten miles west of El Reno in historic Canadian County.



Above: Rick and Melanie Feilberg.

Below: J. Scott Inc. Drilling Mud Disposal.



CALVIN MAYS OILFIELD SERVICES, INC.



Calvin Mays next to his company's first welding truck, 1977.

Originally organized in 1976 as Calvin Mays Welding, Inc., the company's name was changed to Calvin Mays Oilfield Services, Inc., in October 1985. The parent company, Calvin Mays Companies, Inc., also includes Mays Oilfield Supply, Inc., C. C. McMillin & Company, Inc., (for oil and gas production and operating), and Calvin Mays Petroleum, Inc.

The company handles all aspects of oilfield construction and repair. Services include pipeline installation and maintenance, dirt work from building the location to restoration after plugging. The company also provides pumping services, trucking, roustabout, welding and supplies, as well as ownership of a mining quarry in Kingfisher County where shale and fill dirt are sold for roadways and drilling sites.

Calvin Mays began his career as a welder in the Guthrie FFA Chapter Ag Mechanics class. During his senior year he was awarded "State Farmer" and was the State Champion in the Ag Mechanics Competition. Mays went on to win the Silver Emblem individual in the national competition at Kansas, City, Missouri. After high school he was employed as a welder at AutoQuip Corporation in Guthrie; in his

spare time at home he rigged up a welding machine on a trailer working evenings and weekends doing miscellaneous welding work for local farmers.

On a Sunday afternoon, his father-in-law, Wayne Bennett, who was a dozer contractor for local drilling rigs, came to his house and stated to him that the drilling rig where he was working needed some help with the welding work. Soon afterward, Mays began to receive calls from other drilling rigs. His business increased so much that he eventually rigged up a welding truck, quit his old job and started

chasing rigs. Some of the first companies he worked with were Johnson and Bates Drilling, Sabre Drilling and Pierce Drilling. Mays was known to work up to eighty hours a week welding while he was chasing rigs.

Calvin Mays has always been considered a hands-on manager, and on any given day you might still see him out in the field running equipment, welding, or overseeing a work-over rig. Mays continues to work with the crews when needed and would not ask any of his employees to do anything he would not do.

Other key individuals include Assistant Manager Timmy Paul, who has been with the company since 1980. Calvin and Denna Mays were married in 1981 and afterwards she began working with the company and is the office



manager. Son, Justin Mays, is one of the construction supervisors, having started as a yard hand, working his way up through the company. Daughter Callie Mays is production secretary for Calvin Mays Oilfield Services, Inc. Daughter Melissa Freeman works for Chesapeake Energy, in Oklahoma City. Other long-time employees include Construction Supervisor Paul Stanfill, Constructor Foremen Leon Descher and Garret Gum, and Production Foreman Chris Cowden (1993-2005). There are currently twenty-eight employees. The company contributes to the local community including athletic and FFA organizations. Calvin and Denna are members of Community Church, where Calvin served on the Building Committee and as an usher. They also own C. C. McMillin & Company, Inc., which owns and operates oil and gas wells in central Oklahoma, and operate Cripple Creek Ranch, where they raise registered Black Angus cattle.



Calvin Mays Oilfield Services works all over the state with offices six miles North of Guthrie, at 201 West County Road 72. The company reports gross revenue of approximately \$8 million.



KALAMAR, INC.

The independent oilman in Oklahoma and around the world has long relied upon a handful of truly outstanding oilfield service providers to ensure a smooth transition from their dreams of striking oil to the reality of bringing it to the surface and keeping everything in working order.



Kalamar, Inc. was created in June 1984 for that particular purpose by Kathy (Ka) and Larry (La) Martin (Mar). Larry began his work in the oilfield service industry when he

took his first position with N. L. Acme Tool in Oklahoma City in 1969. After working as a senior accountant in the company's home office for seven years, he transferred to Acme's office in Vernal, Utah, to gain more experience in the field. Two years later, he went to work for Dotco Fishing Tools to manage their store in Vernal. He later moved to Farmington, New Mexico, and finally landed in Oklahoma when he was transferred to Dotco's office in Elk City during the big oil boom of 1980. He later moved to Duncan and ultimately settled in Enid.

Larry and Kathy formed Kalamar, Inc., in 1984 with only three 7 1/16 3000# blowout preventers. As the business grew, they reinvested their profits. While Larry was in charge of the bookkeeping and outside sales work, together Larry and Kathy cleaned, serviced, and delivered the equipment whenever and wherever it was needed.

In 1990, the couple purchased an office building and land at 2710 South Van Buren in Enid and made several additions to the location with updates to the office and shop in 1992 and further additions to the shop in 1995, 1997, 2000, and 2002. Kalamar moved into a larger building with more land at 1405 East Willow in Enid in 2006.

Today Kalamar, Inc. includes 17 employees in the Enid store, with 82 customers with current open accounts and over 670 customers on their insurance certificate list.





HOTCO



Clockwise, starting from the top, left:

David Hough, 1987.

HOTCO in 2012.

Tool inventory, 1988.



Formed over thirty years ago by David Hough in Copan, Oklahoma, HOTCO is the leader in electric submersible pump recovery. Today this historic Oklahoma business remains the oldest privately-owned tool company in the state.

It originally began as Hough Oilfield Service, a sole proprietorship, in May 1980 with a truck and one set of casing tongs. In 1982 the business was expanded with the purchase of a power swivel, reverse circulating unit, cased hole and open hole fishing and rental tools. The company continued to grow and in 1984 an additional power swivel, reverse circulating unit, along with additional fishing and rental tools and the company's first yard and building were purchased and opened in Copan.

In 1986 the devastation of the oil bust was felt across the state, and David sold the casing tongs, one power swivel and circulating unit. Having no debt allowed him to continue operating the remaining power swivel and circulating unit along with the fishing and rental tool business.

The company weathered the storms of that era and customers continued to seek them out for their unmatched expertise in the field. Ultimately, a yard and building were purchased in Cushing in January 1988.

The business continued to prosper and an additional business was established in April 1989 and named HOSS Well Service. Two double/triple workover rigs were purchased and HOSS continued to provide excellent

workover rig service until April 1992 when the rigs were sold and energies were concentrated on the fishing and rental tool business.

On July 1, 1995, Hough Oilfield Service, Inc. changed their name to HOTCO. An additional yard was opened in Ada, Oklahoma. Business was exceptional for the first year while the second year brought increased expenses

and a downturn in sales. To correct the situation a major management change occurred in January 1997. There was a major turnaround in activity as well as a large increase in the customer base and profits continued to increase.

In 2008 the company name was rearranged to become HOTCO Oilwell Fishing & Rental Tools. It also ventured out of its normal line of business and established a new company, Hough Haulin which consists of haul trucks, multiple trailers, T-Rex Forklifts, and a full fleet of one ton trucks. Today, Hough Haulin specializes in transporting pumps and pits from location to location as well as tubing, casing, pipe racks, and catwalks.



HOTCO continued to grow through the end of the decade and customer demand remained at an all-time high. The company purchased an additional tool business in Lindsay, which had been in business for only a few short months and HOTCO acquired a new and large customer base as well as new equipment and tools.



From its inception, experienced and dedicated employees have allowed HOTCO to remain an extremely efficient company. Today, HOTCO employs thirty-one outstanding workers including owner David Hough and eleven tool supervisors and experienced fishermen located in Cushing, Stonewall, Lindsay and in Woodward (2012). Mechanics, shop managers, salesmen, and office personal make up the rest of HOTCO's staff. HOTCO has an fleet of different circulating units consisting of triplex pumps and duplex pumps along with power swivels, as well as a complete inventory of fishing and rental tools, including manual,

annular, and ram-type BOP's; downhole manual and electric cable cutters; casing scrapers; casing wedges; elevators and slips; power tongs and tong heads; cable and casing spears; hydraulic jars; and overshots.

HOTCO is a proud member of the OIPA (Oklahoma Independent Performance Association) and NEOK API (Northeastern Oklahoma Chapter of American Petroleum Institute), which David is currently on the board of directors, and served two terms with NEOK API as president. HOTCO is located at 711 West Cherry in Cushing, Oklahoma and at www.hotcoservices.com.



J-W ENERGY COMPANY



 Top, left: H. G. Westerman.

Top, right: The company's first compressor package was built in July 1976.

Below: J-W Energy's compressor, 1960.



J-W Operating Company was founded on November 10, 1960, by Thomas Jeffrey and Howard G. Westerman. The men were first introduced by one of Thomas Jeffrey's clients, Dr. Ralph Connell, a Dallas physician. Dr. Connell was having production problems with a well he owned in Oklahoma, so Jeffrey contacted Bethlehem Steel Company to request a part needed to repair the well. The company dispatched one of their equipment sales engineers, Westerman, to install the equipment and a close friendship was born. Since then, Dr. Connell has been affectionately known as "the dash" in J-W.

In the first two years of operations, J-W Operating Company started working water flood units in southern Arkansas, leading to contracts for drilling brine wells and building a gathering system to deliver brine to a local bromine plant for disposal of the wastewater. Jeffrey brought his expertise as a geologist in reservoir science to the company, while Westerman brought his experience in the design and installation of water flood equipment. These services established J-W Operating Company as a contract operator with broad capabilities in oil, gas and pipeline engineering operations.

In 1962, Jeffrey returned to his true passion of independent consulting, and Westerman became the controlling owner and chief executive officer of J-W Operating Company. Westerman's involvement with gas pipelines and fascination of mechanical equipment led to his interest in gas compressors. During the 1960s, the company entered the gas pipeline business by constructing what later became known as the Douglas Gathering System. In the 1970s, the company built a compressor fabrication plant in a small shop in Longview, Texas, to manufacture and provide compressor facilities to the gathering systems and officially entered the gas gathering and processing market by forming J-W Pipeline Company and J-W Gathering Company.

In 1983, J-W Operating Company formed Cohort Energy Company as its exploration and production company with a full staff of geologists, engineers and land men. In October 1986 a patented two-stroke stratified



engine later known as the Superburn[®] was introduced to the industry. Other inventions included an air-cooled tie rod compressor cylinder and a compressor cylinder with a traveling suction valve. In 1988, J-W Power Company officially formed to manage the compression assets of the company.

In the 1990s, J-W Operating Company acquired Moore Production and Measurement in Shreveport, Louisiana, a major acquisition that would later form Metron Gas Measurement. The company entered the wireline business in 1998 when it acquired BranDex Wireline Company, a major wireline service company located in Sterling, Colorado.

Sadly, on April 4, 1999, Howard George Westerman passed away, but not without leaving a strong foundation for a corporation well prepared to handle future expansion and growth opportunities. Westerman was known not only as a successful business man, but as a dedicated patriot, humanitarian and a man of deep religious conviction.

Entering a new millennium, and under the leadership of Howard Westerman, Jr., the corporation was prepared for rapid new growth and expansion, including employees with an in-depth knowledge of the energy industry and years of experience. In October 2000, J-W Operating Company exceeded \$100 million in gross revenue.

In 2000-2001, the company made multiple acquisitions including Parkline/Arrow Company and Atlas Power Company, thereby laying the foundation for becoming a major compression services provider in the Barnett Shale. In 2001 the company acquired Scott Equipment Company and a majority interest in Gator Valve, a company that manufactures and refurbishes the ball, check and other valves used in the natural gas industry. In 2003, Metron Gas Measurement and Scott Equipment merged to form J-W Measurement Company, the largest natural gas measurement company in the United States. The company also manufactured the world's largest air compression plant (forty thousand horsepower) for a fire-flood project in North Dakota.

Throughout the rest of the decade, J-W Operating Company acquired multiple properties, and in 2008 exceeded \$1 billion in

gross revenue. Additional subsidiaries were added and in September 2010 the company was legally restructured with the result being essentially a name change of the corporation to J-W Energy Company which better reflected the company's scope of services.

Today, the company embodies the energy services and energy development ideals from the visionary leadership of founder Howard G. Westerman. As the company looks forward toward the future, it will focus primarily on the continued growth of its core business units of exploration and production, natural gas compression, natural gas gathering, natural gas measurement, cased-hole wireline services and oilfield equipment manufacturing.



The company's namesake, left to right, Thomas Jeffrey, Dr. Ralph Connell and Howard G. Westerman.



ZENERGY, INC.



Robert M. Zinke.

Zenergy is a Tulsa-based oil and gas exploration and production company that has grown into one of the industry's most active private oil and gas exploration enterprises. Although the company maintains a low profile, it is presently active in eight states, the Gulf of Mexico, and three provinces in Canada. The company has also operated internationally in the United Kingdom, Portugal, Israel and Nigeria.

The company, formerly known as Zinke and Trumbo, Inc., was founded in 1980 when Robert M. Zinke and David Trumbo met at Hawkins Oil and Gas Company where Trumbo was a geoscientist, and Zinke was vice president of exploration. The two decided to branch out when they saw the need for a quality prospect generation shop with a strategic focus on the Mid-Continent region of the United States.

Zinke, the son of a petroleum geologist and independent oil and gas operator, often accompanied his father to the oil fields of the Permian Basin as a boy. It was a profound influence that has remained throughout his life, education and career. In 1975, he graduated from the University of Oklahoma with a BBA in petroleum land management.

As Zinke and Trumbo developed their company, they gradually found success in numerous field discoveries in southwest

Kansas, Oklahoma, and the Texas panhandle. Zinke believes that success is linked to the ability to adjust. "We've been very adaptive throughout our thirty year history, which is probably why we are still in existence and why we've been successful." The company's position in the Bakken Shale oil play of the Williston Basin in Montana, North Dakota and Saskatchewan is a great example. "We initially became involved in the Williston Basin in 1998, so we were definitely one of the earliest players, and we are currently one of the most active players."

Today, Zenergy owns and/or controls a substantial leasehold position of more than 300,000 net acres with six drill rigs in operation. According to Zinke, "the Bakken Shale is the most successful economic resource play in North America, with many companies in the industry rushing to become involved in that play."

Zinke is active in many associations and boards including having served as chairman of the Price College Energy Management Board of Advisors and a member of the Price College of Business Board of Advisors. He has made several major gifts to the Energy Management program funding the Robert M. Zinke Chair for Energy Management and establishing an endowment to support the program and its director.

Founded over forty years ago, United Services Ltd. was the first gas compression company of its kind in northwest Oklahoma and remains today as a leader in oil field services, trucks, roustabout crews, flow testing, and backhoe services.

In 1971 the company H. Gene Cook was working for sold out. By September of that year, he had formed United Services and began to establish himself with a handful of dedicated and knowledgeable employees in the field.

With the support of key individuals like Jack H. Vaughn and Dr. K. E. Smith and good friends such as Hubert Jackson with Arco, Ken Shaw with Damson, Floyd Taylor with Shell Oil, Jim Maytubby

with Ramsey Engineers, and many others, today United Services Ltd. stands upon the shoulders of these fine men. Loyal employees, many with more than twenty-five years of dedicated service to the company, have remained crucial to the growth and outstanding service that United Services continues to provide throughout the industry in the twenty-first century.

It is no surprise to Cook that the company continues to flourish today. He says, "If you work hard; treat people fair who work for you and who you work for...then you will succeed." And today his son, Mike Cook manages the company in the same manner.

**UNITED
SERVICES LTD.**

**UNITED OIL &
GAS SERVICES**

**WOODWARD
WIRE ROPE &
SLINGLINE, INC.**



Wewoka in the oil boom days of 1926-27.
COURTESY OF THE ALVIN RUCKER COLLECTION,
OKLAHOMA HISTORICAL SOCIETY.

HAMMER CONSTRUCTION, INC.



Above: (From left to right) Taylor Jennings, Shirley Hammer, and Robby Moore.

Below: Jack Hammer.



Originally founded in the 1950s by Jack Hammer as Hammer Construction and Dozer Service, the company changed course and owners in 1988. Jack Hammer, who was struggling with serious health issues and in the midst of a lagging energy economy, decided to retire and shut down the small operation. However, his daughter, Shirley, stepped in to follow in her father's footsteps to preserve the legacy and run the family business.

three decades of ups and downs of the oil and gas industry. His youngest son, Bobby, now manages the family ranch perpetuating Jack's love of land, horses, and cattle.

Under the direction and leadership of Shirley Hammer, the company has flourished from seven employees in 1988 to 165 employees presently. Hammer Construction's most noteworthy achievement was that it built Chesapeake Energy's very first location in 1989, the Newby 1-1, in Garvin County, and enjoys a strong relationship with Chesapeake today. The corporate headquarters were moved to Norman in 2004. Oklahoma locations include Weatherford, Elk City, and Lindsay, with a facility in Bridgeport, Texas. Hammer Construction works with major energy operators such as Devon Energy, SandRidge Energy, Continental Resources, Enogex, and Enbridge, among others, generating over \$24 million in annual revenue in 2011.

The company's mission is to cultivate lasting relationships with valued customers by exceeding expectations, providing outstanding service, safe operations, and superior quality. The company strives for a positive and opportunistic work environment for employees making success attainable for all.

Future plans for the company include continued development in Oklahoma energy activity, earning a preferred vendor status in all services provided with a special focus on enhancement of the labor and maintenance divisions. Shirley Hammer's career goal is to groom her family to become the third generation of leadership and continue the Hammer Construction legacy.

Shirley Hammer was recognized by *The Journal Record* as one of Oklahoma's "Most Admired CEO's" for privately held companies, a three year nominee for Woman of the Year, and was inducted into the Circle of Excellence.

In July 1988, Shirley set out, with little working capital, to rebuild the business. Historically, the company has provided heavy equipment to construct roads, pits, pad sites for drilling rigs, roustabout labor for installation, maintenance, and support of production equipment, and expertise for pipeline and compression maintenance. The company moved from Elmore City to Lindsay and reorganized as Hammer Construction, Inc. in January, 1990.

Jack Hammer lived a life full of challenges. He sacrificed a formal education to work at a young age to help support his family of ten. He further mourned the loss of three sons, including his oldest son who was fatally wounded in Vietnam in 1968. He prevailed

PERFORMANCE LUBRICANTS & CHEMICALS, INC.

Founded on July 1, 1997, Layne Barnett had the idea to go into business for himself and open Performance Lubricants & Chemicals, Inc., by offering the best products, the best service, and the best prices in the industry. Prior to the opening of his own company, Layne had originally worked throughout Texas selling lubricants, chemicals and pressure washers since 1988. Building on this knowledge, he opened Performance Lubricants & Chemicals, Inc.

Fifteen years later, the business has flourished to include two salesmen, three service technicians, a warehouse manager and an office manager.

The modern oilfield "boom" of the twenty-first century has once again demanded the best washers, services and chemicals, and Performance Lubricants & Chemicals, Inc. has met that need in every way. Layne and his team remain on the cutting edge in the field and have devised several pieces of equipment trailer units, cold water and explosion-proof, and still being tested and nearing approval.

Layne is proud of his employees and the name Performance Lubricants & Chemicals, Inc., has made for itself in the oil patch. Throughout his accomplishments and the company's growth over the past fifteen years, Layne has felt blessed to have great advisers and the ability to bend with the demands that have come before him while at the same time maintaining the foundational values by which he first created the company.

Layne's fairness as an employer has served his faithful employees well as they enjoy their work and view their position in the long-term. The company's annual Christmas party and its July Fourth Independence Day celebration are highly anticipated and continue to emphasize the family atmosphere of the company.

Layne's charitable activities and work in the community remain varied and include Driver of the Year awards for customers, as well as a strong support for local schools and Newspapers in the Classroom efforts.



Clemenscot, Oklahoma, in the 1920s.



EQUIPMENT SERVICES

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The Magic of Petroleum is captured in the artwork of Wayne Cooper and is located between the offices of the Governor and Lieutenant Governor of Oklahoma at the State Capitol.

VACUWORX INTERNATIONAL



Top: Bill Solomon, founder of Vacuworx.

Above: A Vacuworx machine being deployed.



Vacuworx International was created from a desire to make a dangerous industry safer by using vacuum lift technology to move steel pipe around the jobsite. Bill Solomon, the founder and president of the Tulsa-based company, recalls that the idea was born around the family dinner table while he was talking with his father about the dangers of the oil and gas pipeline industry.

Solomon felt so strongly that he could provide a safer workplace that he invested all the money he could raise to form a company that—in effect—created a new industry for the construction market.

When Solomon founded Vacuworx in 1999, vacuum lifting systems were used in a variety of ways, but mostly in a controlled environment to move sheets of glass or boxes with an overhead crane. The technology had been around at least sixty years when Solomon decided to adapt it for use on construction projects in the field.

Solomon first saw vacuum technology in use in Europe and Australia. “I was talking with some people here in the U.S. about various components we might use, and that’s why we brought in stuff from different parts of the world and built this self-contained machine. All the manufacturing is done right in Tulsa. From humble Tulsa we go all over the world,” Solomon says.

In addition to pipe, vacuum lifting technology can be used to handle glass, marble, granite, polished stone, steel plates, steel piling, steel tanks, landscape rocks, concrete slabs and other materials.

Concerned about the large number of accidents on jobsites, Solomon began to wonder why workers had to use slings, chains, hooks and other conventional methods. “The company was founded on safety,” says Solomon. “It’s

all about safety and helping people. It’s getting workers out of places they really shouldn’t be. This mindset—that’s the way we’ve always done it—required a while to break that cycle and give us a shot with new technology.”

The Vacuworx system is simple and safe to use, but the challenge was to persuade contractors to adopt the new technology. “We had to get them to the point where they couldn’t imagine doing the job without it,” says Solomon.

The Vacuworx system uses a closed frequency wireless remote control system that allows the equipment operator the ability to maneuver the material being lifted with great precision and without the requirement of additional personnel. Not only can the contractor save by reducing his workforce but, in many cases, a reduced insurance rate can be obtained due to the lack of any ground personnel in harm’s way. Simply put, by addressing the major concern of safety, the Vacuworx system affords the contractor the ability to reduce his workforce, lower his insurance cost, and actually speed up the process of material handling. In the end, this equates to a safe work environment and increased profits.

“The operator is working with a wireless remote and a ground crew isn’t needed,” explains Shawn Lowman, director of sales and marketing for Vacuworx. “You get full manipulation of the equipment from the remote. You can move, turn, rotate, set down and pick up the next piece. You don’t have guys with tag lines trying to set it down.”

By eliminating the need to have a crew guiding the pipe into position, the danger of a pipe falling on someone is reduced, if not eliminated altogether. Fewer injuries provide a cost saving for the contractor with increased efficiency and a quick return on investment.

“Every year that goes by, particularly in the U.S., safety is becoming more of a concern to contractors,” says Solomon. “Take the people out of where they shouldn’t be. Let the machine do the work and let the people work where they are more valuable. Where they were using three people before, now they’re using one. They’re saving money because the return on the cost of this machine happens very quickly. Now, that’s a positive benefit.”

The growth of Vacuworx was also helped when the industry started using expensive pipe coatings soon after the company was formed. Contractors needed to handle the pipe without damaging the expensive coatings and the Vacuworx system was the answer. Pipe was being moved about by chains, slings and hooks, but the need to protect the coatings from damage provided Vacuworx with a golden opportunity.

Veterans in the pipeline and utilities industries have found vacuum lifting to be a safer and more cost-effective way to maneuver materials.

Keith Miller, vice president of transmission work with Miller Pipelines in Indianapolis, says his company purchased its first vacuum lifting machine from Vacuworx about ten years ago. “Hands down, it’s the safest way to unload pipe at this time,” Miller says.

Dan Salcido, operations manager with Southwest Contractors in Bakersfield, California, obtained his company’s first Vacuworx-lifting apparatus in 2008. He says Southwest Construction traded a complex system of belts and side booms for a time-and-money-saving process that leaves little room for accidents and injuries.

“We probably cut the time factor to unload by half or more,” Salcido says. The technology allows two workers to successfully complete tasks that would have required a five or six-person crew before.

Jason Mask, logistics manager with Houston-based Troy Construction, says “The pipeline and station contractor moved to vacuum lifting and away from conventional methods of handling pipe more than five years ago. The technology has worked well for us. We pretty much use them on every job we have now. Anytime you have to handle pipe,

it’s much safer, much more efficient and much faster with the Vacuworx lifter.”

Vacuworx International now offers vacuum lifting machines in five models, ranging from three to twenty-tons lift capacity. These units can lift pipe with diameters as small as four inches, or as large as needed. The vacuum technology allows for the pipe to be lifted and moved without scratching the pipe coating. The more important factor in using vacuum technology, however, is safety.

Over the years, Vacuworx has associated itself with a number of industry trade associations, including the American Pipeline Contractors Association (APCA), Distribution Contractors Association (DCA) and Pipe Line Contractors Association (PLCA). In addition the company is involved with a number of regional and statewide industry groups.

As founder and chairman, Solomon was also instrumental in establishing the Tulsa Pipeline Expo in 1999. The Expo is designed to showcase the leading energy and infrastructure companies throughout Oklahoma, and is held annually.

Vacuworx now employs about forty people in its Tulsa office and manufacturing facility. While the bulk of the company’s business comes from the United States, Vacuworx sells its products throughout the world.

Vacuworx has grown each year since it was founded, despite the recession, and Solomon expects that to continue. “Our business has been excellent,” he says. “We’re not dependent just on oil and gas or just steel pipe. We’ve been able to adjust and expand, developing new products that enable us to supply material handling solutions to a variety of other industries and vertical markets for steel, concrete, and plastic—whether flat or round.

“It’s been humbling to think that we’ve come up with an idea, turned it into a product, created a company and now created an industry for vacuum lift machines,” says Solomon. “Here’s a product that people come back to us for again and again and again. We have good customers that have been with us for ten years. When I think about what we do, I want to carry that message through to the entire organization. Everyone here has a hand in the success of the company.”



TULSA PIPELINE EXPO



The Tulsa Pipeline Expo began in 2009 with a strong group of individuals and businesses dedicated to the mission of TPE. Expo participants are passionate about growing our state's energy, infrastructure, utility, and construction industries. The Expo, which has grown tremendously each year, showcases Oklahoma's leading businesses in these sectors.

The state of Oklahoma has a very rich heritage in the oil and gas industry. Although the energy industry has experienced difficult times in past years, Oklahoma has continued to generate thriving businesses that serve the energy and infrastructure needs across North America.

The Mission of the Tulsa Pipeline Expo is to raise awareness of our state's rich heritage in the energy industry and the growing infrastructure services, and to showcase products and services of the many Oklahoma businesses that keep our state strong.

Our objectives are to educate the marketplace and complement regional initiatives to improve the Oklahoma business climate. We are promoting the technical innovations within the state and integrating a strong field of companies with proven track records.

Oklahoma has the manufacturing, production, processing, services, and distribution resources to meet the needs of the energy and infrastructure markets. We have the capacity to market, transport, and access businesses and ports across the United States within days. The Expo provides the opportunity to meet many of these companies in one place.

The three-day forum provides opportunities to network with pipeline, utility, construction, and water and sewer companies throughout North America. TPE includes a trade show, educational sessions, a golf tournament, and a variety of business networking opportunities.

Event attendance and exhibition has grown tremendously year after year, proving that there is great interest in what Oklahoma has to offer. TPE attracts a diverse crowd of attendees and exhibitors—all with a common passion to learn about and grow the states commerce. Personnel that will benefit from



TPE are contractors, business owners, managers, job superintendents, engineers, purchasing agents, equipment fleet managers and equipment dealers.

TPE was developed by Vacuworx International, a Tulsa-based manufacturing company, and led by the firm's chairman, Bill Solomon. According to Solomon, TPE functions as a preferred 'partner' program, a financial guidance program, and an educational cooperative.

The preferred 'partner' program is an effective resource for merging talented prospects with Oklahoma companies. "We believe collaborating with organizations such as the Better Business Bureau and local chambers will strengthen and broaden these opportunities," says Solomon.

The financial guidance program serves as a channel to financial resources and will streamline access to guaranteed terms, loan amounts, working capital, fixed asset loans and more. The goal is to engage local financial institutions with Oklahoma businesses in their efforts to take part in domestic and international projects.



In addition, TPE is collaborating with the state's top education centers and accredited teaching facilities to complement the state and regional economic growth strategies.

Through the Eagle Gift Foundation, a 501(c) (3) nonprofit organization, TPE raises tens of thousands of dollars each year to contribute to charities serving Oklahoma. "We want a charity channel for companies to be involved with, because Oklahoma is very good about giving, and we purpose to impact our local communities" says Solomon.

For more information about the Tulsa Pipeline Expo, visit www.tulsapipelineexpo.com.



ARVINE PIPE AND SUPPLY COMPANY, INC.

For nearly forty years Ron Arvine has built an outstanding reputation in the oilfield. Through his vision and determination, Ron has built a substantial business that has grown to service customers throughout the United States and internationally.

Ron first began his career in the oil business in 1974 working for a small independent oil and gas producer. After eighteen months, with just one item in his garage, he ventured out on his own and founded Arvine Pipe & Supply Company, Inc. Ron was encouraged and schooled by

knowledgeable veterans in the oil business known for their integrity and strong work ethic. They also taught Ron that a handshake meant he would deliver on his word. This became the core philosophy that drove Arvine Pipe and Supply Company, Inc. and it still does today.

In a short period of time, the demand for his products grew and Ron found it necessary to rent four acres and an office at Max Westhiemer Airport in Norman, Oklahoma. Despite several oil booms and busts, Arvine Pipe and Supply continued to expand.





Initially Ron's company offered a limited range of new and used oilfield related equipment. Soon his customers began requesting that the company supply them with separators, tanks, pumping units, tubing, casing and rods. As inventory expanded, the four acre yard was too small so twenty-five acres were purchased on Highway 77 in Norman. The company operated out of two yards until a new office was built in 1990 and the entire operation was moved to the new location.

Along with this expansion, Arvine Pipe and Supply acquired a state plugging bond, allowing them to plug abandoned wells. This gave the company access to good used equipment and the ability to include the operation of stripper wells.

Currently the company has a 10,000 square foot pumping unit repair shop fully equipped with overhead cranes and staffed with experienced mechanics and machinists. In addition, there is also a 3,000 square foot

machine shop, a hydrostatic pipe testing facility for tubing and casing, a Hub City pipe cleaner and a pipe straightening and steaming facility. The business operates eight full-time delivery trucks with a staff of twenty-seven employees, several of whom have been with Ron for over thirty years.

From inception, the cornerstone of Arvine Pipe and Supply Company, Inc. has been to emphasize customer satisfaction and an old-fashioned work ethic, which is instilled in the management team and employees alike. The company motto has always been "You either love it, or we will pick it up."

What began nearly forty years ago with one wellhead in a garage, is today a thriving business with a multi-million dollar inventory, a good strong customer base and the livelihood of twenty-seven families.

For more information about Arvine Pipe and Supply Company, Inc. visit the company online at www.arvinepipe.com.

KIMRAY, INC.

Kimray, Inc., a fourth-generation, family-owned manufacturer of control valves and related equipment for oil and gas producing companies, has built its success on quality, service, integrity and a business model based on deep religious principles.



Right: Kimray founder, Garman O. Kimmell.

Below: Left to right, CEO David Hill; Founder Garman Kimmell; Chairman Tom Hill; and President Thomas Hill III.

Opposite, top: Kimray assembly stations and warehouse.

Opposite, bottom: Kimray's back pressure regulator significantly impacted the oil and gas production process.

Kimray was founded in Oklahoma City in 1948 by Garman Kimmell, a creative engineer often described as a “gentleman and a genius.” One of the first products Kimmell developed for his new company was the three inch SGT-BP, a pilot operated gas back-pressure regulator. The first of many patented designs, the Kimray gas valve revolutionized gas pressure regulation.

Kimmell personally designed many of the company's early products, often making his own parts in a well-equipped home shop. In those pre-computer days, Kimmell would often sketch a design on the back of a napkin and depend on the machine shop to build a prototype.

Kimmell, who preferred working late at night in the machine shop rather than normal office hours, designed many products that have had a lasting impact on the industry. Kimray's glycol pumps, treater valves, oil dump valves, high pressure valves and pilots are all recognized throughout the industry.

Kimmell also developed a heart pump used in open heart surgery and a unique device that helped prevent blood clots in heart patients.

Kimray machines iron, steel and aluminum, as well as thermoplastic materials, to build its comprehensive line of control valves, thermostats, energy-exchange glycol pumps, gas-operated pilots and other control devices. Kimray products are used to control vessel and lead line temperatures, liquid level inside pressurized vessels, pressure drops and liquid and gas flow.

Kimray's turnkey manufacturing facility includes dozens of lathes, grinders, turning, milling, sawing, and bore finishing machines, nearly all with CNC systems onboard.

Although Kimray's well engineered products are considered the standard of the industry, Kimmell believed strongly that a company must service what it sells. As a result, Kimray products are designed for serviceability. Customers may repair a three inch SGT-BP purchased in 1948 with a repair kit purchased for the same model being produced today. This commitment to non-obsolescence has been a trademark of Kimray design since it was founded.

Kimmell's son-in-law, Tom Hill, now serves as chairman of the board of Kimray. He began his career at Kimray in 1971 after seven years in the Marine Corps and earning an engineering degree from Oklahoma State University.

Hill's sons—and Kimmell's grandsons—represent the fourth generation to operate Kimray. Thomas A. Hill, who serves as president, began his career with the company after graduating from Oklahoma State University with a degree in mechanical engineering.





David Hill, chief executive officer and vice-chair of the board, began his career at Kimray in 1993. He attended Oklahoma State University before graduating from the Advanced Training Institute in Chicago with a degree in international business.

Other top officials of Kimray are Tom McCormick, vice president of materials and secretary of the board, and Bob Cole, chief financial officer and treasurer.

Although careful about expansion and committed to a policy of never borrowing money, Kimray experienced some tough economic times during the industry-wide recession of the 1980s. The company was forced to lay off employees for the first time in 1981, a decision that proved very painful for Kimmell. The founder vowed to start putting money aside in a reserve fund so he would never again have to lay off an employee.

When business slowed in 1986, the company developed a unique program under which Kimray employees were 'loaned' to local government and civic organizations to help with projects ranging from landscaping to helping in offices. This civic generosity caught the attention of national news organizations and, best of all, helped the company avoid lay-offs during the difficult eighteen month period.

"Kimray is the people who work here, and some of them have been involved for nearly sixty years," remarks President Thomas A. Hill. "We're a compassionate company, and there's a sense of family among the employees."

Because of the emphasis Kimray places on its employees and their success, the company

experiences a very low turnover rate among the nearly 700 employees.

Believing strongly in the Biblical admonition that, "A good name is more precious than silver or gold," Kimray has always been guided by deep religious principles. These bedrock principles are spelled out in the company's mission statement, which reads:

"Kimray is a manufacturer of oil and gas equipment and controls, servicing producers and equipment manufacturers in the petroleum industry. In order to effectively serve our stockholders, employees and customers, the board of directors is committed to:

Honoring the Lord in all we do by operating the company in a manner consistent with Biblical principles.

Serving our employees and their families by establishing a work environment and company policies which build character, strengthen individuals, and nurture families.

Producing a high quality, marketable product at a fair price in order to provide a return on the stockholder's investment, share the Lord's blessings with our employees, and invest in our community.

We believe it is by God's grace and provision that Kimray has endured. He has been faithful in the past, and we trust Him for our future."



ONSITE OIL TOOLS, INC.



Founded in 2007 by Mark Treadwell and business partners Daniel Harrison and Timothy Sicking, Onsite Oil Tools, Inc. rents a full line of specialized equipment and tools utilized in fishing operations.

Fishing services are required by the oil and gas industry whenever there is an obstruction in the borehole of a well. At times during the life of a well, cable, tubular, casing, wellbore

tools or debris may become detached and stuck in the well. Onsite Oil Tools, Inc. provides fishing and cutting tools to remove such obstructions and return the well site to normal operation.

Mark's experience in the oilfield fishing and rental tool industry had served him well for thirty years when he ultimately decided to venture out on his own and form the company.

Onsite Oil Tools, Inc. was originally established in Ratliff City, Oklahoma—an

area that remains one of the oldest and most strategic locations for oilfield activity as well as the home of a variety of outstanding, well qualified workers with years of valued experience in the field. Seven full-time employees were hired and every piece of equipment that the company would need was built brand new. With a vast contact list, Mark soon built a strong, steady business that included loyal clients who knew they could trust that the work would be done correctly and efficiently.

Today, the company has grown over 500 percent and includes nearly thirty full-time employees and a second location in Oklahoma City. Operations currently exist in the United States and other countries including Romania, Brazil and Columbia.

Onsite Oil Tools, Inc. is well-known for its contributions to the communities in which it serves and provides support to local schools and sports teams as well as donating to outstanding associations such as the March of Dimes, Relay for Life, Christmas Angel Tree, Shriner's Hospital, and many local churches and other organizations.



KEYSTONE PIPE & SUPPLY CO.



Mike Roberts came to America in 1903 from Latvia through Liverpool, England, and Ellis Island. He settled in Blackford County, Indiana and went into business as a junk dealer with his brother. He and others moved to Oklahoma around 1914 and several settled in Okmulgee and Tulsa. Mike chose Nowata and opened Keystone Supply Company in the fall of 1914 as a junk and pipe dealer in the 400 block of East Cherokee Street. In about 1923, he built a brick office and warehouse building at 316-322 East Cherokee Street. A pipe thread shop was in an old barn-type building west of the new office building. It is said that the first jail in Nowata was in the northwest corner of the thread shop where bars were on the windows. A large yard is located south of the office where pipe was stored.

Nowata has been known as the shallowest oilfield area in the world. A new warehouse was built east of the brick office about 1940 and the company expanded and increased its inventory to include new merchandise such as pipe fittings, well pumping equipment, electrical supplies, v-belts and sheaves, tools, and wire rope. A welding shop was started and a machine and thread shop was included in a new shop building that was built in the 1940s to replace the old thread shop.

Mike died in 1938 and left the company to his wife and two sons. His oldest son Jacob, who worked with his father in the business, married and moved to Okmulgee around 1930, and his youngest son Myer took over the operations at Keystone. Mike's wife died in 1950 and their two sons became partners with Myer serving as the operating partner.

Myer was killed in a Braniff airliner crash in 1954 and his share in the company was left to

his wife. Jacob was joined by several trusted employees as he took over the operations of the company. Mike's grandson and Myer's son Bernard, who had recently completed his service in the military, joined the company in 1956. The company was incorporated in 1965 as Keystone Pipe & Supply Co. Bernard and his wife purchased the company in 1974.

The Roberts family graduated ten of its family members from the Nowata School and has always been a booster of the schools, the town, and the county. The company and family were very active in helping build the Nowata Hospital, which was the first hospital in the United States to be completed and operating under the Federal Hill-Burton Act.

The Keystone and the Roberts family have been members of local, state and county organizations, and has remained a member of the OIPA for nearly a half-century. Mike's great grandson, Michael, served as executive vice-president of the OIPA from 1985 to 1987, when he died suddenly.

The Keystone has seen steel-wheeled cable tool drilling rigs run with steam engines to rubber-tired cable tool rigs with gasoline engines to self-propelled mud drilling rigs to air drillings rigs; from horse-drawn pulling units to tractor-powered pulling units to self-propelled engine powered pulling units; from powerhouse band wheels with rod line and Jones pumping units to individual gasoline to electric-powered pumping units; from glycerin-shot holes to fracturing and perforating oil and gas sands; from lap-welded tubing and casing to seamless tubing and casing.

From the beginning to nearly a century later, the Keystone Pipe & Supply Co. of Nowata, Oklahoma, has been serving the oil and gas industry of northeast Oklahoma.



Founder Mike Roberts.



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An oil derrick stands as a symbol of the state's proud energy industry past in front of the Oklahoma State Capitol.

ENERGYNET.COM, INC.

When William W. Britain and Jim J. Brewer founded EnergyNet in 1999, they had two major purposes in mind. One was to increase the liquidity of oil and gas assets by designing the most streamlined and efficient acquisition and divestment process possible. The second was to create the most transparent oil and gas property marketplace available for buyers and sellers.

Instead of reinventing the already established one-day, hotel-hybrid auction, they wanted to create a marketplace that would be active and vibrant in both good times and bad.

After more than a decade in business, EnergyNet has logged nearly 37,000 successful property sales, a tribute to the company's sales process. From its beginnings, EnergyNet has continually studied and refined its processes and workflows to adapt to the industry's changing needs and to better meet its customer's requirements.

EnergyNet has sold properties in virtually every United States producing basin and successfully completes more than 2,000 transactions annually.

Most of the properties EnergyNet sells are located in the contiguous forty-eight states and typically range in value from \$1,000 to \$20 million. EnergyNet maximizes divestment returns by enabling sellers to achieve the highest prices for properties in the industry and to drive down costs as well.

The goal of EnergyNet has always been to bring an efficient, ethical and convenient marketplace for oil and gas industry professionals who need to participate in either acquisition or divestiture activities.

The EnergyNet team specializes in auction and mid-tier negotiated sales and is the only oil and gas property marketplace that operates continuously, twenty-four hours a day, every day of the year.

EnergyNet's Internet-based platform allows for nationwide user participation without travel restrictions, increasing bidder competition by expanding the potential bidder pool. EnergyNet clients are able to buy and sell oil and gas properties from virtually any computer using its unique and active online marketplace.



EnergyNet's online registration and bidding process allows buyers to participate from nearly any Internet-enabled device with a web browser.

The oil and gas industry has embraced the online auction format and the host of benefits it brings to the table. EnergyNet's clients include major oil companies, large independent oil companies, bank trust departments, foundations, churches, universities and individuals. Users of the EnergyNet platform include Chevron, ExxonMobil, Shell, EnCana, Bank of America, and many other large companies. In addition, the FDIC and the Bureau of Land Management and the State of North Dakota have divested properties using the EnergyNet platform.

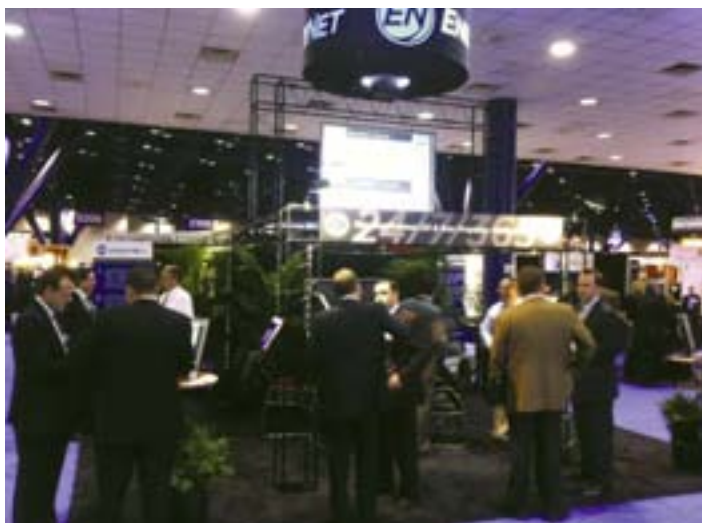
EnergyNet has registered bidders in all fifty states and has sold properties in every producing state and every basin.

As part of its periodic internal reviews, EnergyNet often enlists the assistance of industry experts, engineers, economists and other financial professionals to conduct evaluations of its sales and business processes. This feedback is utilized to hone the firm's business model and develop additional capabilities.

In 2010, EnergyNet contracted with Guhan Subramanian, a professor at both Harvard Law School and Harvard Business School, and an expert on auction theory, negotiations and deal process design. Subramanian was asked to examine EnergyNet's historical transactions and offer analysis and suggestions for process improvement.

Specifically, Subramanian was asked to examine why EnergyNet's model works and study it in relation to the competition in the live/hybrid auction and negotiated sale markets.

The study by Subramanian came to three major conclusions: EnergyNet's online auction format attracts bidders who would be unable or unwilling to attend an onsite auction. This feature increases revenue to the seller, particularly for smaller lots where travel costs would be prohibitive; EnergyNet's proxy bidding system facilitates asynchronous bidding and reduces the need for bidders to monitor auctions, which also attracts bidders and increases revenue for the seller; and not adopting a hybrid online/onsite approach preserves a level playing field among bidders, which again attracts bidders to the auction and increases revenues for the seller.



The EnergyNet Marketplace Advantage gives pre-qualified, registered bidders the flexibility and convenience of conducting their acquisition and divestment activities online all day, every day. Their technological reach presents an oil and gas property portfolio to thousands of buyers with multibillion dollar buying power. Their online auction format reaches bidders who are unable or unwilling to attend onsite auctions, and who rely on the level playing field their system provides. This



Above: Our booth at Winter NAPE 2011, the world's largest prospect expo, in Houston, Texas.

Below: NAPE 2012.





Above: Left to right, Frank Hereford and John Laur.

Below: Ethan House.

convenience and confidence translates into increased revenue for sellers, particularly for smaller properties where prohibitive travel costs add to the overall price of the property.

When considering their strengths, it is easy to understand why EnergyNet had an eighty-one percent overall sales success rate through the period of the Subramanian study (December 2004 to April 2010). This includes 2009, when EnergyNet noted an extreme reduction in acquisition and divestiture activity industry-wide. Yet, despite this reduction, the financial crisis and general economic downturn that occurred during this time frame, EnergyNet closed more transactions than any other industry advisor.



By leveling the playing field, EnergyNet offers its clients a pure Internet trading community, the first of its type, in which buyers and sellers are brought together to divest and acquire oil and gas properties.

A primary benefit of the online format is the increased transparency between the buyer and the seller. By conducting the auction process entirely online, bidders have up-to-the-minute information twenty-four hours a day and have access to property due diligence and bid information at unprecedented levels of detail. A fully-digital marketplace benefits from increased efficiency and provides the highest quality of service for EnergyNet clients.

EnergyNet's online auction is, by its nature, easily verifiable as a legitimate and fair competitive process where every bid received is immediately recorded in a lot's bid history. By providing constantly-updated, highly accurate access to the sale's progress, bidders using the online auction format are able to fully participate in the auction. This platform establishes a transparent auction process for both buyers and sellers. The result is more competition and a higher level of participant engagement.

EnergyNet's standardized online due diligence presentation allows buyers to examine organized data and property files quickly and efficiently. Not only is performing due diligence in this way more efficient than sifting through multiple boxes of loose paper, it also provides the assurance that all bidders have equal access to all the data at all times.

The online due diligence presentation is another significant advantage over hybrid and live auctions. These auctions rely heavily on paper, either mailed to bidders, or in stacks of boxes at the live auction venue. Unfortunately, it is not uncommon to see multiple boxes of new data arrive at the auction venue on the day before a sale that has been scheduled for months—destroying the balanced playing field between live auction participants and those who wish to participate in the same auction online. When bidders are disadvantaged by this type of inefficiency, the result is a dramatic reduction in competition and ultimately, lower seller revenue. For this reason, online bidders often abandon hybrid auctions due to frustration.

The EnergyNet model prevents these types of eleventh hour surprises. If due diligence information for any property must be changed or updated, every registered bidder who has viewed the lot online receives notice of any changes immediately after they occur via the website and e-mail notifications. This procedure prevents such changes from disrupting the equality of the bidder playing field.

This same format also gives the seller flexibility with scheduling and updates. Auctions with any sort of interruption (technical, weather-related, etc.) can immediately be postponed, reset or rescheduled, and all participants notified. This was the case during Hurricane Katrina, when EnergyNet briefly suspended auction activity while a significant portion of the oil and gas industry in the Gulf Coast was unable to participate.

Finally, the EnergyNet auction is never dependant on a minimum number of properties that are required for an auction to be conducted. Live and hybrid auctions can suffer from the problem of having to obtain a "critical mass" of properties before they become economically feasible for the auction company to conduct, and cost effective and attractive enough for bidders to attend. At EnergyNet, if the auction of a property or group of properties must be postponed, this does not affect other sellers' property sales that are scheduled on the same day.

The convenience and flexibility of EnergyNet's proxy bidding system combines the advantages of a sealed-bid auction with the competition of an open, transparent auction mechanism. The proxy bidding system allows for asynchronous bidding and reduces the need for bidders to monitor auctions, attracting more bidders and increased revenue for the seller.

EnergyNet's advanced proxy bidding mechanism is an invaluable tool for bidders to maintain their bidding status. By placing a proxy, a buyer asks the EnergyNet auction engine to bid automatically on their behalf, up to the amount they specify. The proxy will then place bids at the minimum amount necessary to maintain their status as high bidder until their proxy value is exhausted.

Because the proxy system operates automatically, after a bidder enters their maximum

valuation amount for a property in one easy step, the bidder is not required to actively monitor the entire auction. This is especially useful when a buyer must be away from their computer during the auction, or if they will not have access to the Internet at times while the auction is in progress. Buyers do not have to be online or logged in for their proxy to bid on their behalf.



For sellers, the proxy system minimizes the chance that a bidder leaves money on the table when the auction closes.



Lisa Weiss.

EnergyNet highly recommends using the proxy bidding system. It is the simplest way for a buyer to maintain their status as the high bidder if they have valued the property more than other bidders. This feature is critical to buyers when the bidding pace increases faster than a buyer can respond by manually entering flat bids.

It should also be noted that two-thirds of proxy bids are recorded before the last day of the auction and bidders who utilize proxies are more likely to win. As Subramanian observed, "Although flat bids provide certainty to the bidder, it turns out that they rarely win, particularly as lot value goes up." On average, eighty-four percent of EnergyNet auctions are won by a proxy bid.

To sellers with properties to divest, EnergyNet asks the question, "Why wait?"



The oil and gas business is far too dynamic for one-day auctions scheduled two months in the future and subject to cancellation. Unfortunately, cancellations and extended postponements are often the case with live and hybrid auctions. Auctions that are constrained to a fixed date are subject to cancellation when an inadequate volume of properties are under contract, leaving sellers little option except to wait perhaps several months for another auction to be scheduled.

EnergyNet provides sellers on-demand liquidity. Their real-time marketplace is designed for sellers and buyers to engage continuously. It is not built for the convenience of the advisor. EnergyNet typically closes auctions Tuesday, Wednesday and Thursday of every week of the year. EnergyNet closes auctions an average of 140 days each year, and has properties available for due diligence and bidding all 365 days of the year. By contrast, live and hybrid auctions are historically conducted on only one day, seven times per year.

EnergyNet is proud of its rapid sales cycle. Selling a property with EnergyNet takes as little as thirty-five days from the time they receive the data to the time a check is issued to the seller. Through February 2012, EnergyNet closed an average of more than 2,000 transactions annually and sold more than 36,700 properties from more than 3,800 unique entities.

EnergyNet sellers optimize their package divestment via arbitrage by selling large packages in smaller pieces. Selling properties in their lowest definable strategic unit (single well, lease or field) maximizes value by opening the opportunity to a wider range of purchasing budgets.

EnergyNet is currently the acquisition platform of choice for more than 16,500 individual registered buyers; of which over 8,200 participate monthly on average. Greater buyer exposure, as measured by the number of bids and unique bidders per property, maximizes value for sellers. EnergyNet averages 7.8 bidders per transaction, while the live and hybrid auction competition averages only 2.8 bidders per transaction.

The EnergyNet marketplace maximizes divestment returns by enabling sellers to achieve the highest prices in the industry for their properties and to drive down their costs. EnergyNet is compensated by a success-based commission only. If a seller's property does not sell, no commission or fees are typically owed. There is no inherent risk when selling with EnergyNet.

At live and hybrid auctions, bidders typically have only two minutes to place their bids. Sellers can only hope that the right bidders are present during those two minutes. EnergyNet auctions provide bidders with a seven day bidding window, and offer a proxy bidding mechanism to buyers can participate even is absent at the time of auction closing.

EnergyNet reaches many bidders who have never participated in a live or hybrid auction. Many of these bidders are constrained by prohibitive travel expenses or refuse to participate online due to their lack of trust in the hybrid format and its uneven playing field. Many simply prefer the cost-savings and convenience the online format affords them.

Sellers must ask themselves a tough question: How many bidders are being overlooked by limiting the exposure of their properties to only those who will show up on a specific day

for a live auction or are willing to participate in the frustrating experience of online bidding in a hybrid auction? How much money is left on the table when those bidders are absent from the process?

With advanced marketing opportunities, EnergyNet's technological reach allows sellers to present their oil and gas property portfolio to over 16,500 buyers with more than \$3.5 billion in buying power.

EnergyNet's buyers have access to advanced property search and notification capabilities on the website. All properties that are currently available for auction are located on EnergyNet's auction listings page. The auction listings page allows buyers to quickly sort and search throughout the properties that best match their acquisition criteria.

Their advanced search feature can be used to instantly filter all currently listed auction properties by a seller's name, lot number, closing date, or by any other information that appears within the auction listings. Buyers can save customized search criteria and can set these saved searches to notify them when new properties appear on the site that match their specifications. The system is significantly more powerful than a printed catalog that is often inaccurate or, at best, incomplete, the moment it goes to the printer.

EnergyNet knows the pulse of the oil and gas market. Their continuous sales provide accurate value assessment in a liquid market to track metrics on a consistent and frequent basis, with property sales in virtually every onshore U.S. basin.

Headquartered in Amarillo, Texas, EnergyNet has Business Development representatives in Houston, Amarillo, Dallas, Oklahoma City, Denver, and Bloomfield, Michigan. EnergyNet principles have more than thirty years experience in the oil and gas industry and have been actively involved in acquisition and divestiture, exploration and production, producing well operations, drilling geology, engineering and land management.

For more information, visit the EnergyNet website at www.energynet.com.



Above: The OIPA Golf Tournament. Left to right: Michael Baker, EnergyNet, Inc.; Trent Tarp, Devon Energy; Major Ed Pulido, Warriors for Freedom; Brad Lewis, EOG Resources and Ethan House, EnergyNet, Inc.

Left: The OIPA Golf Tournament.

BOONE PICKENS SCHOOL OF GEOLOGY AT OKLAHOMA STATE UNIVERSITY



Above: Kenneth D. Patterson instructing students in mineralogy in 1954. Professor Patterson taught at Oklahoma A&M between 1954 and 1955 before entering the petroleum industry.

Right: V. Brown Monnett in 1947. Dr. Monnett was the first head of the Department of Geology at Oklahoma A&M College.

The Boone Pickens School of Geology at Oklahoma State University, named for the famed Oklahoma oil man, excels in geological research and provides its students with a practical education designed to prepare them for a career in the oil and gas industry as well as other fields.

Geology as an academic discipline at OSU has been closely linked with the development of the state's oil and gas industry and has shared the industry's well-known booms and busts. Although geology was not available as a bachelors degree until 1946, interest in the subject was spurred by the 1920s oil boom in Payne County.

Geology classes at the time were taught by teaching assistants and when Otto Smith, head of the department responsible for Geology, tried to hire M.S.-level faculty, he found he could not compete with the oil industry. In 1930, Smith managed to hire Ray Six, who held an M.S. in geology from Oklahoma University and remained at OSU until he retired. In addition, Victor Stringfield, who had served part-time, was given a full

appointment in 1930. The Geology Department at OSU grew from this simple start and awarded its first B.S. degree in 1946.

When Geology was removed from Chemistry and became a separate department in 1947, Dean Schiller Scroggs appointed Brown Monnett as department head. A legendary figure in the growth of the School of Geology, Monnett came to OSU from the University of Michigan, where he had completed his Ph.D. He was a native Oklahoman and his father had been a noted geologist at the University of Oklahoma.



The new department's faculty included only Ray Six and Hobart Stocking, but in three years it grew to 230 majors and was the largest program in the College of Arts and Sciences. Additional faculty members were hired, including Roy Jackson, John Naff and Alexander Ross.

Perhaps the most noted graduate of the post-war period was T. Boone Pickens, who received his B.S. in 1951. He went on to excel in the oil and natural gas industry and became a major benefactor to OSU and the School of Geology, which was named in his honor.

"Boone Pickens is a very generous man, almost to a fault, and his influence on the school has been substantial," comments Gary Stewart, professor emeritus, former head of the department and OSU alumnus.

A financial crisis in 1953 forced Dean Scroggs to combine geology, geography, and meteorology into the Department of Earth Science, with Monnett as head of the department. Temporary faculty was used to lighten



the teaching load, although two more permanent faculty—William Brent and Joseph Schreiber—were added in 1955.

During this period, OSU cooperated with Oklahoma University in teaching a six-week field geology program at a field camp in Cañon City, Colorado.

In 1965, geology moved from the Library Annex into the Physical Science Building. However, this was a period of declining enrollments because of a lull in the oil industry. John Shelton was added to the faculty in the early 1960s and he and four other faculty members shared teaching responsibilities for both lower and upper division courses.

At the end of the 1960s, Monnett became interim associate dean and John Stone was hired as department head. In a major step forward, the program was allowed to offer the M.S. degree in 1964. At this time, geology and geography were split into separate departments. Geology was aligned with chemistry and physics in The School of Physical and Earth Sciences, with William Sibley serving as the associate dean.

Enrollment in the School of Geology has always waxed and waned with the fortunes of the oil industry. Oil prices were depressed in the early 1960s and only seventeen students selected geology as their major in 1967. The OPEC oil embargo of 1973 and the Iranian revolution in 1978 led the U.S. to seek a self-sufficient oil industry. By 1975, the program had attracted 75 majors and skyrocketed to more than 340 in 1981. Gary Stewart and Zuhair Al-Shaieb were hired to help with the growing number of majors.

Stewart recalls that enrollment at the school has been as high as 350 and as low as sixteen, all depending on the financial health of the oil and gas industry. “As a land-grant university, we always try to provide a very practical education for our students,” he says.

In the second half of the 1970s, the department reworked its curricula and modernized equipment. To counter the ebb and flow of the oil industry, an emphasis was established in groundwater when Douglas Kent was hired.



Top, left: An aerial view of the Oklahoma State Geology Field Camp during the 1952 season. The camp was established in 1948 jointly by the Oklahoma A&M College and the University of Oklahoma. Located in the Rocky Mountain Front Range near Cañon City, Colorado, the camp was leased from Les Huston, a local rancher, until 1990.

Top, right: Geology at OSU has always involved plenty of field work. In this photograph students and faculty (some of them) are examining an outcrop along Highway 50 west of Cañon City, Colorado during the 1954 Field Camp season.

Below: The 1951 membership of the OSU chapter of Sigma Gamma Epsilon, the National Earth Sciences Honor Society. Row one (seated from left to right): Billy Arnold, Edgar Pechin, William Troxel, George Bradley, Professor John Naff, Gilbert Lamberson, Frank Welborn, and Orland Lacer. Row two (standing): Professor Ray Six, H. L. Hunter, A. B. Echols, Dare Six, John Kerrigan, Bill Brogden, Jeff Prestridge, and James McPike. Row three (standing): Robert Stocking, Irvin Piersall, James Weber, Ray Stinchcomb, T. A. Mace, S. T. Ayers, Eugene Nakayama, and Rondal Uhl. Row four (standing): Daniel Jones, Billy Patterson, Eugene McDaniel, Bill Rose, Harry Vest, Herb Davis, Professor Phil Chandler, and Professor V. Brown Monnett.





Above: Today field work continues to play a major role in educating geologists at OSU. This photograph shows students studying an outcrop outside the Mixing Bowl during the 2007 Field Camp season.

Below: The more things change the more they stay the same. Dr. Tracy Quan instructing students in mineralogy in the modern Devon Energy Laboratory in 2012.



Pettyjohn recalls that there was little research and little equipment when he arrived and he learned that the department was, “Three years in debt to the Dean.”

“We came up with a grant from the EPA to buy equipment and were able to increase the number of courses taught in the department,” he says. “A class in hydrogeology brought in students from all over.”

As department head, Pettyjohn also started a program to retrain petroleum geologists as hydrogeologists when the oil industry went into one of its periodic slumps. “We ran 1,300 students through this program and all got a job when they left,” he says.

In 1981, Pickens gave a million-dollar gift to his alma mater and the money was used as seed money to raise additional funds for the school and its programs. The Department of Geology was renamed the Boone Pickens School of Geology in recognition of Pickens’s generosity.

Geology had 385 majors in 1983, and took over sections of the old Dairy Building to accommodate labs and offices. However, oil prices collapsed again in 1983 and efforts to raise money for a separate Geology building fell short. Geology was then incorporated into the new Noble Research Center.

Pettyjohn took an extended leave as department head in 1984 and Stewart served as interim department head. Faculty added during this period included Arthur Cleaves, Vernon Scott, Darwin Boardman, Ibrahim Cemen, and John Vitek.

From the 1980s to 2000s, three endowed chairs were added to the department: the Clyde Wheeler Sun Chair in Hydrogeology, the Brown Monnett Chair of Petroleum Geology, and the Boone Pickens Chair of Geophysics.

During the 1990s, the Boone Pickens School of Geology had to contend with declining enrollments and loss of faculty. However, the solid M.S. program kept producing good hires for the oil industry and environmental firms. Pettyjohn retired in 1995 and Al-Shaieb was named department head. He held the position until 1999 when he was replaced by Darwin Boardman. Todd Halihan and Jim Puckette joined the faculty in 2000. Ibrahim Cemen served a three-year term as head from 2001 until

2004. Anna Cruse and Alex Simms were added to the faculty in 2005.

In 2005, Jay Gregg, a 1976 OSU alumnus, was hired as the new head of geology from the University of Missouri-Rolla. Estella Atekwana was hired as the Sun Chair the following year and her husband, Eliot Atekwana, also joined the faculty.

The domestic petroleum industry rebounded in the mid 2000s, triggering steadily increased enrollment in the B.S. and M.S. geology programs. A major gift from Devon Energy Corporation in 2005 allowed the school to completely renovate its teaching facilities. New faculty, including Jeffrey Byrnes, Priyank Jaiswal, and Tracy Quan were hired as older faculty retired or left for other positions.

A Ph.D. program in geology was finally approved in 2007, with the first two Ph.D. degrees awarded in 2010. This new degree program coincided with dramatic increases in research funding from government and industry sources.

Faculty member and OSU alumnus Puckette feels that one of the things OSU does very well is infuse practicality into its research. “We do some research for the sake of research and the advancement of science, but most of our research has an applied component and very practical applications,” he says. “We offer a sound education in geosciences, and we try to teach our students how to think.”

Lanny Holman, a 1972 graduate who now works for Chesapeake Energy, feels he has been served well by the practical education he received at OSU. “The school prepared me well,” he says. “And as a rule, most of our graduates have done well. We know how to prospect and how to find oil and gas and we were taught the basic science very well.”

Independent producer Herb Davis, a 1953 graduate, feels the school attempts to turn out working geologists who “know how to make a decision.” He feels the Boone Pickens School has grown to become one of the better schools of geology in the nation. “It attracts good students who want to go to work in the industry,” he adds.



An Advisory Board of alumni and friends was established in 2006 to help guide and develop the Boone Pickens School of Geology. With the help of the Geology Advisory Board, more than \$20 million has been raised through 2011 in donations, state matching money and pledges. These funds have resulted in significant improvements, including the rebuilding of the OSU Geology Field Camp in Cañon City, Colorado, after a devastating flood; hiring a technician for the school, establishing three new endowed chairs—Chesapeake Energy Corporation Chair of Petroleum Geosciences, Devon Energy Corporation Chair of Basin Research, and the Boone Pickens Chair of Applied Geosciences. The Advisory Board has also established a number of new undergraduate scholarships and graduate fellowships. The endowed chairs, scholarships and fellowships benefited greatly from the matching funds provided by Pickens, who continues to strongly support the school named in his honor.

Mike Gaskins, a 1980 graduate who works for ExxonMobil, has just completed a term as chairman of the Advisory Board. “We try to understand the school’s financial needs and attract alumni or corporate funding to support the different programs,” he says. “I think the Advisory Board has had an incredibly significant impact on the Boone Pickens School of Geology.”



An aerial view of the Les Huston Geology Field Camp in 2008 soon after the Camp’s renovation. The camp facility was donated to Oklahoma State University in 1990 by Les Huston’s daughter, Tiny Striegel, and her husband Ernie Striegel. Today the camp is entirely managed and staffed by the Boone Pickens School of Geology and accommodates up to seventy students and staff during each summer field season.

OKLAHOMA ENERGY RESOURCES BOARD



Above (From left to right): Carla Schaeperkoetter, Sara McKisson, Cheryl Standage, Steve Sowers, Mindy Stitt, Jennifer Billings, Diana Mathis, Breanne Wald, Gayla Wright, and Taylor Todd stand on the concrete foundation of the OERB's future headquarters in downtown Oklahoma City. The towers behind the group will serve as the building two elevator shafts when construction is complete. The building will also be home to the Oklahoma Independent Petroleum Association.

Back in the early 1990s, a group of Oklahoma oilmen embarked on an endeavor like no other. They wanted to tell a different story about the oil and natural gas industry. Not the negative one that had plagued the headlines for so long and tarnished the reputation of their beloved state. They were proud of what the oil and natural gas industry was doing for Oklahoma. And, they wanted to tell their true story.

It was a story of an industry that was, and still is, the backbone of this state; that provided millions for roads and schools. A story about a single industry that, today, pumps \$61 billion into the state economy and accounts for one-third of the gross state product.

Their idea was simple and innovative. Oklahoma's oil and natural gas producers and royalty owners imposed a voluntary assessment on themselves, and the Oklahoma Energy Resources Board was born.



The OERB was created by the legislature in 1993 and operates as a financially self-supporting, quasi-state agency. The OERB does not have state employees; instead it accomplishes its duties through private contracts.

The OERB is governed by an unpaid, twenty-one member board. Representation is divided between independent oil and natural gas companies, major oil and natural gas companies, petroleum purchasers and royalty owners.

The governing body, along with the staff of ten, has helped make the OERB a success story from which other states are modeling their own programs. Kansas, Illinois, and Ohio each created similar check-off programs based on the OERB design.

Board Members Since Inception			
BOARD MEMBER	TERM SERVED	BOARD MEMBER	TERM SERVED
Steve Agan	Dec 2001 - March 2009	David Hines	Dec 2001 - Feb. 2009
Bob Alexander	Sept. 1992 - July 1993	Ed Hooling	Jan. 1993 - Aug. 2002
Andrew Arnesen	Mar. 2007 - May 2010	H.G. "Hagler" Hayslett	Sept. 1992 - June 1999
Alan Baker	Sept. 1992 - May 2000	Linda Lambert	July 2000 - April 2007
James F. Barlett, Jr.	Sept. 2007 - Oct. 2010	Jul Lyle	Dec. 1994 - Jan. 1998
James Bass	July 1999 - March 2009	J.C. "Chick" Luzzanesi	Sept. 1993 - Jan. 1998
H.L. "Yonah" Rogers, Jr.	Mar. 1999 - July 1999	Bruce Matlock	March 2000 - Jan. 2009
Michael G. Barger	Sept. 1992 - Dec. 1992	Leard Hickey	Jan. 1997 - Dec. 2000
Tom Beuchly	Dec. 2004 - May 2011	Jim Hinton	Nov. 2000 - Sept. 2011
Earl Broman	Dec. 1992 - March 1999	H.L. "Hank" Hingstine	Oct. 1994 - Aug. 2007
W. Richard "Dick" Broussard	Sept. 1991 - July 1994	Mike Hagan	Aug. 1998 - Aug. 1999
Richard Brown	Jan. 1993 - Aug. 2000	Frederic Hays	May 2000 - July 2007
Jack Brunner	Sept. 1992 - Aug. 1993	Gary Heasley	Oct. 2002 - March 2009
Jim Cramer	Oct. 1993 - March 1999	James "Jim" Kuhn	Aug. 1992 - Feb. 2000
Paul Crow	Sept. 1999 - Aug. 2002	Tom Price, Jr.	Sept. 2002 - May 2004
Tom Davis	Sept. 1992 - March 1999	Don Schwabey	Jan. 1999 - March 2004
W.P. "Bud" Dow	May 1999 - Dec. 2001	Ed Sharp	Dec. 2000 - May 2007
Charles "Sugar" Drake	Sept. 1994 - Oct. 2001	David Swanson	Jan. 2004 - March 2010
Alan Engler	Feb. 2005 - Feb. 2010	Cliff Swartzendruber	Aug. 1992 - April 1994
Barbara Fowitt	Jan. 1999 - Sept. 2000	Jim Stafford	Jan. 1991 - Aug. 2004
G.C. "Trey" Gao	June 1994 - Sept. 2001	Red Sullivan, Jr.	Dec. 2000 - April 2009
J.M. "Jack" Greiner	Aug. 1992 - Feb. 1998	John Sutter	Nov. 1999 - Aug. 2002
G. Carl Hale	Aug. 1992 - Sept. 2002	Henry "Benny" Valentin	Jan. 1994 - July 2000
Paul Harb	Aug. 1992 - Aug. 1993	Bob Linger	May 1999 - Oct. 2000
Harold Harsh	Aug. 1992 - Dec. 1994	Wagner International, Inc.	April 2003 - Feb. 2010
Stan Lee Harsh	June 2004 - March 2010	Gary Hulse	Aug. 1994 - Jan. 1999
Mike Harson	May 2007 - Dec. 2011	Bob Walker	Aug. 1997 - Aug. 2000
J.D. Hedrick	July 2000 - Nov. 2009	H. Beard O'Hanlon	Sept. 1992 - Jan. 1995
Tom Howard	Jan. 1993 - April 1999	Harold G. Wilson	May 1992 - April 2004
Sammy Huff	Sept. 1992 - Jan. 1999	Michael Winkler	March 2000 - Oct. 2011
Robert Kelley	Aug. 1997 - Dec. 1999	John Wigger	Aug. 2000 - May 2008

OERB 2012 Board of Directors

<p>Ronnie Inesi, Chairman Oil Services & Production</p> <p>Tim Matlock, Vice Chairman Sunoco Petroleum, LLC</p> <p>Julie Kruger, Secretary J.W. Luffburgh III, Inco Iron</p> <p>Rusty Johnson, Treasurer JCI Operating, LLC</p>			
<p>Terry Adamec, BP America</p> <p>Mark Aebi, ConocoPhillips</p> <p>Pete Brown, Sun & Swarthmore Producer</p> <p>Mike Cantrell, Sunoco Investments, LLC</p>			
<p>Phil Cook, Devon Energy</p> <p>Mike Cross, Michael P. Cross, Inc.</p> <p>Bill Gifford, DCP Midstream, LP</p> <p>Tom Gressen, Anadarko Petroleum</p>			
<p>Suzanne Hatfield, Rio Diners, LLC</p> <p>David House, Jiroh Resources, LLC</p> <p>Rob Johnston, Apache Corporation</p> <p>Sam Langford, Newfield Exploration</p>			
<p>Dale Malady, Marathon Oil</p> <p>Garrett Phelan, Suroco Logistics</p> <p>John Pilkington, Muirfield Resources</p> <p>Will Whitley, Chevron North America</p>			

Nearly twenty years since its creation, the OERB has used its generous contributions to put one-of-a-kind environmental restoration and energy education programs into action. These flagship programs show the industry's dedication to excellence.

Executive Director Mindy Stitt leads the OERB staff. One of the organization's original employees back in 1993, Mindy helped create the organization's student education programs. Mindy served as the education director before assuming the executive director's position in 2006. As the executive director, Mindy manages the agency's overall budget, oversees the various committees, and develops business plans in collaboration with the board and staff, outlining the future of the organization.

The OERB is broken into three main departments—environmental restoration, student education, and public education.

Steve Sowers heads up restoration as the environmental director. He reviews and makes recommendations for all of the OERB's environmental restoration bids received from contractors. He also maintains relationships with various regulatory agencies.

Environmental Coordinator Sara McKisson assists Sowers. Sara helps identify orphaned and abandoned well sites for potential restoration using satellite recognizance and other methods.

Working closely with Sara is the OERB's controller, Diana Mathis. Diana handles all accounting functions for the agency, including bidding documents and refund requests and claims; and she assists in the preparation and review of the annual and five-year budgets as well as the annual state audit.

OERB Assessment Auditor and Office Administrator Cheryl Standage manages the assessments at the Oklahoma Tax Commission (OTC). As office administrator, she coordinates various meetings and maintains assorted records and supplies. Cheryl also works as PetroTech coordinator, maintaining the student database and applications.

Carla Schaeperkoetter serves as the OERB's education director. Carla is responsible for the OERB's statewide student education efforts. This includes organizing and updating



eight energy and science curricula, managing a college scholarship program, maintaining relationships with the OERB's partner museums, and coordinating special projects within the education department.

Taylor Todd assists Carla as the education coordinator. Taylor helps coordinate the OERB's teacher network and oversees the OERB's Petro Pros program.

Gayla Wright serves as the OERB's curricula coordinator. Gayla is responsible for promoting and marketing OERB's science and energy curricula. She also assists in updating the curricula and future curriculum development.

Jennifer Billings heads up public education efforts as the communications director. Jennifer develops all media relations and oversees the OERB's advertising efforts. Jennifer also manages the social media endeavors of the OERB and maintains a news blog on OERB.com.

Breanne Wald serves as the communications coordinator and web administrator. Breanne updates content on the OERB's website, produces web videos, designs newsletters, and helps coordinate media events.

The board and staff are grateful to the energy producers and leaders whose pioneering spirit and vision paved the way for the OERB nearly two decades ago. We are proud to carry forth their mission in the state of Oklahoma.

The environmental restoration program has proven remarkable. The OERB has restored thousands of abandoned well sites and spent millions on the effort.

Behind every restoration is a proud Oklahoman whose land is beautiful and productive again. And, the OERB is honored to make a difference for so many of our friends and neighbors. We know these sites are not just a plot of land, but also a part of someone's livelihood.

The goal behind every restoration is to return the land back to a useful state. And, for every landowner, that means something different.



Top, left: Old dangerous equipment and debris were removed from the Sutterfield property during the OERB environmental restoration.

Top, right: Tall prairie grass grows freely on the Sutterfield Ranch after the OERB clean-up.



Top, left: A restoration on the O'Dell property removed concrete blocks and rusty pipe.

Top, right: The O'Dell family farm after an OERB restoration.

For instance, on our very first project—the Busby Ranch in Pontotoc County—the landowners simply needed more pasture to graze their livestock. With deeply eroded land like the Busby's, building a pond was the best course of action. In fact, since 1993, the OERB has built hundreds of ponds on various properties across the state.

The restorations of these abandoned well sites are profoundly personal to the OERB and its staff. What starts as a salt scar or ragged pipe one day, may just turn into the site of someone's homestead or legacy landmark.

That is exactly what happened for the O'Dells near Wilson, Oklahoma. They now call their family farm a “little slice of paradise” after the OERB cleaned up several abandoned well sites on their property.

The OERB restoration removed rusty pipe and heavy concrete blocks, leaving behind the pristine prairie and a pond for fishing.

Other times, landowners have bigger plans for the property. In 2005, the Deer Creek School District called the OERB in preparation for building its new middle school. Before any work could begin, however, contractors removed heavy concrete and pipe and cleaned up a disposal pit.

In a thank you letter to the OERB, the school district's director of operations wrote: “...(We) extend our sincere appreciation to you and OERB for your excellent work in cleaning up our new middle school lot...the property now is clean, beautiful and ready for use.”

A new 157,000-square-foot building will run on geothermal technology. Tennis courts, soccer fields, a softball field, a baseball field, a football field and a track will also fill up the forty acre site.

The OERB restores, on average, two to three sites daily and it is estimated there are as many as 35,000 sites that still require remediation.

The OERB Environmental Restoration team will continue its work hunting down sites across the state using geographical databases and aerial photographs, relying on its partnership with the field inspectors from the Oklahoma Corporation Commission and taking calls from the many Oklahomans across the state who reach out each day to report their abandoned well sites.

We are proud to make a positive and everlasting difference in Oklahoma.

We are equally proud of our student education efforts and millions of dollars dedicated to its success. Across this grand prairie, school children are getting state-of-the-art science and energy education unmatched in any other state.

The thousands of Oklahoma teachers trained to use the OERB curricula not only give students a basic and fundamental understanding of scientific processes, but also an important understanding of the oil and natural gas history that has made this state what it is today. The OERB curricula are being used in ninety-five percent of Oklahoma school districts across the state.

Dewar Public Schools teacher Joe Fowler might be one of the best spokesmen the OERB has.

“The OERB has partnered with education to provide resources and materials to reach our students, and help school budgets by the equipment they provide,” said Fowler.

Our support of students extends into college to those studying petroleum-related majors at the University of Oklahoma, Oklahoma State University, Tulsa University and Oklahoma City University. Through generous college scholarships, the OERB funds the education of some of the state's best and brightest people who will lead America's energy future.



“The OERB scholarship has helped me not only financially, but also through networking opportunities. I know that in this industry, networking is a big part and OERB is helping us make those connections that will last a lifetime,” said Mary Niles, OSU Geosciences Junior.

The OERB’s commitment to education in Oklahoma is unmatched. From safety at well sites to seismic activity and energy conservation—OERB gives teachers the tools they need to educate students about the oil and natural gas industry. Also, students become armed with the information they need to excel in an industry career. To date, we have shared our exciting energy curricula and safety messages with nearly two million Oklahoma students and teachers.

Nearly twenty years strong, the OERB has made great strides in educating the public about the great contributions of the oil and natural gas industry. That story began with a single newspaper advertisement that pulled the industry out of the shadows.

“Adios to the Low Profile” served as a rallying cry, urging members of the industry to stand up to false information in the media and misguided government policy. By 1996 the OERB had turned to television and actress Susan Howard to tell Oklahomans how “Oil Fuels our Future.”

As the years have progressed, the OERB has produced nearly seventy original public information advertisements for television and

countless others for print and web. More are currently in the production stages. Many focus on the contributions of the industry, like its economic impact and its role in the national energy picture. Others speak to the success of the OERB and our work in environmental restoration and student education.

But, no matter the message, one underlying theme connects all of the OERB’s advertising—the oil and natural gas industry is made up of hardworking Oklahomans who are dedicated to this state and committed to using its resources to make it a better place.

By telling stories of economic contribution, environmental stewardship and educational outreach, the OERB has changed the public image of the oil and natural gas industry. When the OERB first began its public information campaigns, the industry’s public approval rating stood at twenty-two percent. Now, nearly twenty years later, the overall public approval rating sits at eighty-three percent.

We are proud of the oil and natural gas industry’s strength and its achievements. We are proud of our work and our commitment to fulfilling the mission set forth by the OERB founding fathers nearly two decades ago. Together, we all remain Oklahoma Proud.



Top, left: Two Oklahoma teachers practice a science experiment from one of the OERB’s energy curricula during a workshop. Science and energy curricula are provided free to teachers by the OERB.

Top, right: Students in an Enid classroom use slices of bread and gummy worms during a science experiment to mimic the layers of silt, plant and animal life that fell to the bottom of the ocean floor millions of years ago to create oil and natural gas.

A Message from the Oklahoma Energy Resources Board

Adios to the Low Profile

Oklahoma's Oil Producers and Royalty Owners To Reach Out and Touch the Nation With Environmental Action and Public Education

For 20 years, the Oklahoma oil industry has been taking its share without saying a single word. How long a low profile, saying no, "excuse me" — that the truth would set me, it bears. And so, without help.

The result of this was the death of the Exchange and other energy and economic advantages. We got financial, and OERB.

Since then, public pressure against Oklahoma's largest oil company has grown. The result of this struggle have shown us, and others. It's now understood as history.

We've waited too long for a government program of cooperation. As the energy goes, we're here looking for love in all the wrong places.

These years ago a group of Oklahoma producers and royalty owners put together a plan of action, toward one and the same goal, that is necessary for us.

It'll be a high profile plan of action to show up, saying no, "excuse me" — that the truth would set me, it bears. And so, without help.

To see this two-fold program which is presented after the successful "best of both" program, a group of top energy pros have been selected. These 22 regional producers are called the Oklahoma Energy Resources Board or OERB.

They've governmental, economic, and a complete list of participating firms will be listed in a two-part plan and voluntary agreement on environmental and financial matters.

Other states are expected to quickly follow the OERB's example. Interest has already been shown by Kansas, Kentucky, Texas, Louisiana and others of the 36 oil producing states.

Together we'll make a big difference — both to state and national needs, consumers and the investment of our local industry's resources in the nation's energy picture.

Every plan may begin at home. That's why these facts concerning confidence and energy's economic role in Oklahoma and importance of the model environmental safeguards practiced by most of producers like the OERB.

So, let's get going on the ground for health. No more low profile, when we're in effect to be the second strength. Each us. Talk us up.

MEWBOURNE COLLEGE OF EARTH AND ENERGY UNIVERSITY OF OKLAHOMA

When Mewbourne College of Earth and Energy was formed on January 1, 2006, it combined two University of Oklahoma schools with rich and illustrious histories and strong current programs: the ConocoPhillips School of Geology and Geophysics, the Mewbourne School of Petroleum and Geological Engineering, and the Oklahoma Geological Survey.

The Mewbourne College of Earth and Energy is housed within the Sarkeys Energy Center, which comprises a seven-acre, four-square-block, 340,000-square-foot teaching and energy research complex located on the northeast corner of the Norman campus of the University of Oklahoma. The building houses more than 200 teaching and research laboratories, more than thirty classrooms, faculty and administrative offices and a cafe. Sarkeys is home to the Lawrence S. Youngblood Energy Library. The library has over 200,000 references, books and maps related to geological topics. It is the largest geological reference library in the world.

The Sarkeys Energy Center, completed in 1991, provides a state-of-the-art setting in which OU's faculty and students and the energy industry can explore interdisciplinary energy topics and train future generations of researchers and industry leaders.

The goal of the Mewbourne College of Earth and Energy is to be an academic leader for end-to-end energy education and research. The college provides an academic environment for the development of tomorrow's

academic and industry leaders that contains the full breadth of the University of Oklahoma's educational experience while continuing to provide close ties to engineering fundamentals and the science base in geology and geophysics. This intellectual atmosphere combining scholarship, research and teaching leads to the creativity needed to address the issues of tomorrow.

The school's name honors Curtis W. Mewbourne, a Shreveport, Louisiana, native who obtained his degree in petroleum engineering from OU, where he has been honored as a distinguished graduate.

After serving as an officer in the U.S. Army and working as a petroleum engineer, he founded Melbourne Oil Company in 1965. Mewbourne Oil is one of the most successful privately owned oil and gas producers in America and Mewbourne continues to operate the company.

In recognition of his longtime support, the university named the Mewbourne School of Petroleum and Geological Engineering in his honor in 2000, and granted him the Doctor of Humane Letters in 2002. In 2007 the Mewbourne College of Earth and Energy was named in his honor and he was presented the Trailblazer Award for his professional achievement and lifetime commitment to the energy center.

Mewbourne and his family have contributed millions of dollars to endowed faculty positions and student support, resulting in a fully endowed school.



The college's first dean, Larry R. Grillot, brought thirty years of experience in the exploration and production division of Phillips Petroleum. Trained as a geophysicist, he has held posts supervising operations in the U.S., Canada, Asia, Africa, Europe, and Australia. He holds a bachelor's degree in physics from Mississippi State University, and master's and doctorate degrees in geological sciences from Brown University.

The Mewbourne College offers an intellectual atmosphere that combines the scholarship, research and teaching that leads to the creativity needed to prepare students for the challenges of tomorrow, including global competition. Through the Oklahoma Geological Survey, the college promotes the wise use of Oklahoma's natural resources, consistent with sound environmental practices. The survey is chartered by the Oklahoma Constitution and is charged with investigating the state's land, water, mineral and energy resources and disseminating the results of those investigations.

Inspired by a challenge from Mewbourne and the support of OU President David L. Boren, the college initiated a five-year \$80 million fundraising campaign in 2006. Because of the generosity of alumni, industry sponsors and other supporters, the challenge exceeded that goal during the first four years of the campaign. Contributions have included \$21 million in scholarships, fellowships and faculty endowments; more than \$9 million in general facility upgrades; \$24 million for improvements and endowments for teaching labs; and more than \$26 million in general educational support in the form of student enrichment and other support.

For the past five years, undergraduate enrollment at the Mewbourne College of Earth and Energy has increased 54 percent, from 338 to 624, while graduate enrollment has increased 62 percent from 142 to 229. The school staff currently includes 34 faculty members and 22 researchers.



The college reflects the influence of pioneers in petroleum geology including—Charles Gould, Clarence Karcher, Everette Lee DeGolyer, Samuel Lloyd Noble, William Frank Cloud, Charles Stephenson, and Cyril “Cy” Wagner, Jr., just to name a few.

Charles Gould came to the university in 1900, when the school consisted of one building and Oklahoma was still Indian Territory. He served as the first director of the Oklahoma Geological Survey from 1908–1911, and fostered what would eventually become the Pick and Hammer Club, a social and educational club for geology students that still exists today. Gould Hall on the OU campus is named in honor of Professor Gould.





Samuel Lloyd Noble, along with classmate Arthur Olson, organized the Noble-Olson Drilling Company in 1921. By 1930 the firm had grown to the point that Noble formed Noble Drilling Company, a firm that conducted business in nineteen states and several foreign countries. The Samedia Oil Corporation was founded in 1932 to manage the oil production he had accumulated. Noble served on the University Of Oklahoma Board of Regents from 1934-1949, serving two terms as president. Very aware of the dust bowl that devastated large areas of Oklahoma in the 1930s, Noble organized the Samuel Roberts Noble Foundation in 1945 to help preserve and restore the land through research and education.

Clarence Karcher, known as the father of the Reflection Seismograph, gave the petroleum industry the eyes to see beneath the earth's surface and changed forever the methods of searching for oil. Karcher graduated from the University of Oklahoma in 1916.

Wilbur Frank Cloud, a faculty member from 1925 to 1965, taught the oil and gas law course for many years. Affectionately referred to as "Judge" Cloud, he is remembered as an advocate of professional society involvement. On the Friday's following the Thursday evening meetings of the Oklahoma City Society of Petroleum Engineers, Cloud gave pop quizzes concerning the meeting's program.

Everette Lee DeGolyer, a 1911 graduate of OU, revolutionized the oil industry while earning a reputation as the world's greatest petroleum geologist. His talents as both scientist and businessman contributed immeasurably to the world's store of geophysical knowledge and led to the formation of four great corporations: Amerada, Texas Instruments, Texas Eastern Transmission, and DeGolyer and MacNaughton, the world's most renowned petroleum "consulting service." DeGolyer, along with Clarence Karcher, formed Geophysical Research Corporation, which identified more than one hundred salt domes.

Charles Stephenson, a 1959 OU petroleum engineering graduate, began his career with Amerada Petroleum Corporation in 1960. In 1983, Stephenson was a cofounder of Vintage Petroleum, Inc., of Tulsa, an independent energy company known as one of the most aggressive companies in exploring for new oil and natural gas reserves. Vintage acquired producing properties from major oil companies and marketed the production both domestically and in South America. Stephenson retired from Vintage, which was sold to Occidental in

2006, and is now a founding partner of Regent Private Capital and a cofounder of Premier Natural Resources.

Cyril “Cy” Wagner, Jr., earned his bachelor’s degree in geology from OU in 1956. He used his experience and education in the Permian Basin, the Rocky Mountains and Louisiana to help lead Wagner & Brown, Ltd. to a position among the most successful privately-held independent oil and gas exploration and production companies in the nation.

The success of the Mewbourne College is due in large part to the support of people such as Curtis Mewbourne, Jim Day, Denny Bartell, Gene Van Dyke, Jim Henry, and many others.

Major corporate support by ConocoPhillips, Devon, Apache, Cimarex, Anadarko, MI-SWACO, Noble Corp., Chesapeake, Pioneer Natural Resources, Schlumberger, National Oilwell Varco, ExxonMobil, and others has also been a large factor in the success of the college.

In addition to labs, the college now has much-improved student areas such as the remodeled Youngblood Energy Library and new computer labs.

The gift by Noble Corporation for the James C. and Teresa K. Day Suite provides an outstanding environment from which to conduct the business of the college. The Day Suite, along with the remodeled Gene Van Dyke Plaza, sets the tone for the college and gives a very positive impression to various constituents and university supporters.

The Mewbourne College continues to focus on laboratory “hands-on” education. This includes maintaining an emphasis on geologic field work, as evidenced by the new Bartell Field Camp, in use for the first time in 2011, and the upgraded Crustal Imaging Facility, where students have access to state-of-the-art geosciences and engineering software.

The expanded and upgraded petroleum engineering undergraduate teaching labs give students an opportunity to work with industry-standard equipment, and facilities such as the MI-SWACO fluids lab provide very



practical support to classroom lectures. The National Oilwell Varco Drilling Simulator is a major addition to the college and fits in well in the ExxonMobil Lawrence Rawl Engineering Practice Facility, where students and faculty continue to enjoy a very positive working relationship with the College of Engineering.

OU students continue to excel. For example, at the American Association of Petroleum Geologists Annual Convention and Exhibition last spring, OU students were recognized as the outstanding student chapter in the United States. OU is also a past winner of the AAPG Imperial Barrel competition. At the Society of Petroleum Engineers Annual Technical Conference and Exhibition, OU students have won the Petro Bowl three out of five years, the only University to be a three-time winner. Most importantly, OU students continue to be strongly recruited by a broad range of companies, and many students are successful in graduate school. The Mewbourne School of Petroleum and Geological Engineering and the ConocoPhillips School of Geology and Geophysics are consistently rated among the top five petroleum engineering, petroleum geology and geophysics programs in the country. The schools have placed 100 percent of the students graduating with a petroleum engineering bachelor’s degree, a geology master’s degree, or geophysics master’s degree for the past several years. Graduates also command the top average starting salary for OU Norman campus graduates.

Additional information may be found at www.ou.edu.

LEEMAN ENERGY CORPORATION



Founded in 1980 by Don Leeman, Leeman Energy Corporation develops drilling programs as well as drilling, operating and producing oil and gas. Don Leeman entered the oil industry as a Land Man for Gulf Oil Corporation in Tulsa in 1954. Leeman Energy, Leeman Drilling Co., and Leeman-Brett Exploration were eventually consolidated into Leeman Minerals, LLC, in 2009.

Don grew up in Ardmore, Oklahoma, and as a young man was fascinated with the oil business. However, he decided to become a Land Man rather than “stay up all night in a cold derrick shack as a geologist running samples.” After working a while in Colorado, Don returned to Oklahoma and joined Beard Oil Company as head of the land department. He later joined John A. Beard in forming the Beard-Leeman partnership. After several years, the partnership was dissolved and Don began his journey of becoming an independent oil producer.

In his earlier years of education Don had earned a bachelor of science degree

from the University of Oklahoma in 1950 and a program management degree from Harvard University in 1967. In 1971, he earned a juris doctorate in law from Oklahoma City University to give him additional skills for use in the business.

Don also served in the United States Navy as a lieutenant j.g. during the Korean Conflict (1950-1953). Following his military service, he began to follow his instincts in land as an entry to the oil business. He returned to the University of Oklahoma for some graduate study and later participated in the development and introduction of Land Man Curriculum still in use at O.U. In 1970, he married Patti Patton Brett and became the stepfather to three children, John Brett III, Valerie Brett Craig and Rebecca Brett Nightingale. Today, the Leeman's have seven grandchildren.

Over the years, Don has enjoyed reminiscing about the early years in the business, especially one that occurred while he was working at Beard Oil Company. The company had a massive lease buy area that covered several counties in the Sooner Trend in the late 1960s and early 1970s. Don went out to secure as much of the buy area as possible. His skills as a land man combined with working long days and nights in the field resulted in an abundance of drafts that would cover the entire area. When Don called in to report the number of net acres secured, Bill Beard commented, “Whoa, how are we going to pay for all that? We never thought we could get that many acres.” Don told them that they needed to figure out a way because he had given his word on the trades. They followed through on every lease and nearly all of them produced from the massive Sooner Trend. Everyone was happy with the outcome of Don's success as “a lease hound.”

On another occasion, when Don was just beginning his career as an independent operator, a good friend and geologist, George Pendleton, joined him in exploring the Arbuckle Mountain area in southern Oklahoma. They were using old surface geology and were interested in a surface anticline southwest of Davis, Oklahoma. The main producing zones were the McLish and Oil Creek Sandstones, as well as the Arbuckle Limes and



Dolomites. The Bromide Sands had not been found to be productive in the local area. Don was intrigued by the fact that the Bromide Sands outcropping at the surface anticline had oil seeps at the surface. He had the idea that the Bromide could contain live oil on the downthrown side of the faulted anticline, forty-five hundred feet deeper than the seeps at the surface. George had his doubts, but Don told him to “put the geology under it...I’ll get it sold...and let’s find out.” After they agreed, an initial test well was drilled to test the downthrown western limb of the anticline and the result was the thick, steeply dipping Bromide Sands full of high quality oil. This was the discovery of the Bromide Sand production in the West Davis Field.

As a result of Don’s foresight and keen investments in minerals through the years, and the remote locations that he purchased, these areas are now some of the most active plays in the country. He is involved with the Marcellus Shale in Pennsylvania, Bakken Shale of North Dakota and Wyoming, Fayetteville Shale of Arkansas, the Woodford of Oklahoma, and the Niobrara of Colorado, to name a few.

Throughout his life, Don has remained community-minded and served in Ardmore as president of the Rotary Club, a member of the Salvation Army Board, chairman of the Heart Association and the Bull Moose Investment Club. In Oklahoma City, he is a member of Westminster Presbyterian Church and has served as a deacon, Stephen Minister and the president of Men of Westminster. He is a member of the Oklahoma City Golf & Country Club and served on the board of directors in addition to membership with the Petroleum Club. His support for community and civic activities has been unwavering through the years and significant resources have been given to support his faith, his church, the Oklahoma Medical Research Foundation, the Frank Broyles Foundation, Oklahoma City University and Oklahoma City Public Schools Foundation. He has always been one hundred percent behind his




family in their civic and community work and considers this role as “being part of the team.”

As an Oklahoman, Don Leeman’s love of the oil business has helped shaped the future for oil and gas production not only in Oklahoma, but across the nation.



OIL-LAW RECORDS CORPORATION



 Paul Peterson was the driving force behind OLR for thirty-five years. After a decade working for Stanolind Oil as an engineer, he and two other Stanolind engineers founded Oil-Law Records in 1955. Peterson became a tireless advocate and devoted leader of OLR until his passing in 1989.

Oil-Law Records Corporation was founded in the early 1950s by three former Stanolind Oil Company (later Amoco, now BP) employees. Paul Peterson, Jim Ramsey and Barth Walker were experts in matters relating to the Oklahoma Corporation Commission (OCC), the regulatory body for the oil and gas industry in the State of Oklahoma.

The inspiration for Oil-Law Records began in the late 1940s, when oil and gas regulatory filings at the OCC—spacing and pooling orders, field rules, enhanced recovery units, and such—were growing rapidly and becoming more complex. For example, regulations began to require that the applicant for a new well identify any prior drilling and spacing units that had been created in the area of the proposed well. New spacing applications required the applicant to cite the existing spacing orders for any pertinent zones on adjacent lands which they wished to extend into their proposed new unit.

These pro-oil and gas regulations made Oklahoma an industry leader in protecting correlative rights of adjacent operators and owners. But even with this neatly-organized, well-connected system for charting the development of underground oil and gas zones via a trackable unitization system, the complexities of correctly reporting and identifying them for regulatory compliance proved to be increasingly difficult.

This growing complexity inspired these Oil-Law Records (OLR) visionaries to construct a more organized and user-friendly records system; one that would allow the applicant to research the body of filings and correctly note the related precedent, allowing for a building block approach to developing existing oil and gas zones or establishing new zones.

OLR founders envisioned a system that could track each filing from application stage to final order, recording them in a way that would allow every filing to be easily researched on a legal-description basis. OLR desired to create a powerful and unique method for indexing spacing orders; one that would allow a legal/geological index to be created and maintained on every spacing order

filed. This index would accurately track the development of a productive oil and/or gas zone from its origin through full development, over time and distance, up and down the strata, from any surface location. From this vision, the company's Source Numbering System was born.

Through succeeding decades and into the 1980s, Oil-Law Records saw the number of spacing filings boom and, with their increased volume, the Source Numbering System became more important than the founders ever imagined.

Today, OLR's one-of-a-kind system combines hundred-plus years of data and hundreds of thousands of separate "information threads" to paint the most complete picture of Oklahoma Corporation Commission spacing data in existence.

Two strategic business mergers played a crucial role in allowing OLR to emerge as the industry's most trusted information resource.

In 1996, OLR merged with Oklahoma-based PLC Energy Data Company, an oil and gas land consulting and development firm formed in the late 1960s. PLC had captured and digitized the entire body of OCC regulatory filings—approximately three million document pages—the largest private operational and financial commitment in Oklahoma energy data history at the time. Prior to the emergence of the worldwide web, PLC made these images accessible to clients via a fax-back system—the nation's first remotely-accessible digital image base of state-level energy records. Two years earlier, PLC had also created SmartSearch®; the first and only remotely-accessible system capable of daily monitoring all OCC energy docket filings in and/or adjacent to the clients' target properties. This system was renamed iScout® in 2003.

The synergy created by combining the accuracy of Oil-Law Records with the technology of PLC provided customers with revolutionary new ways to explore and manage regulatory data. But with the question of information capture and delivery now answered, OLR's leadership realized there was still one piece of the data puzzle missing.



For many years, Oil-Law Records had been working closely with the University of Oklahoma's GeoSystems Department, the entity responsible for creating, updating and marketing their Natural Resource Inventory System (NRIS). Under continuous development at the university since 1984, NRIS was the largest, most-detailed database ever created on Oklahoma wells and production.

Electing to spin off a private sector company, called RealityGrid, to market NRIS information commercially, it occurred to both the university and Oil-Law Records that combining OLR's existing data assets with the NRIS well records base (including

their digital mapping platform and production data) would complete the state's largest and most comprehensive base of energy data. And in 2001, RealityGrid merged with Oil-Law Records and all these capabilities were combined into today's accurate and highly-accessible information delivery system.

Leveraging today's easy-to-use Internet-based tools to access a repository of tens of millions of document pages, global clients are discovering the length, depth, and breadth of the information and services offered by Oil-Law Records Corporation. To find out more, visit www.oil-law.com.



Present-day leaders of Oil-Law Records include President and CEO J. Brad McPherson (right) and Vice President and CTO Paul Lamb. These experts oversee the collection, compilation and distribution of Oklahoma's most complete and accurate oil and gas industry database and distribution system.

LEE KEELING AND ASSOCIATES, INC.



Lee Keeling and Associates, Inc., is a firm providing estimates of oil and gas reserves for reporting to partners and/or governmental agencies, appraisals of producing properties for acquisitions, divestiture and/or probate, geologic and engineering studies to determine feasibility of prospects and/or proposed projects. Members of the company also present evidence as expert witnesses in litigation in federal and district courts and before state regulatory bodies.

The mission of Lee Keeling and Associates is to provide experienced technical assistance in a state-of-the-art format from which its clients can make dependable business decisions.

The company was founded in November 1957, after Lee resigned from employment as a drilling and production engineer with Magnolia Petroleum Company and a former member of a large Mid-Continent consulting firm, thus forming Lee Keeling and Associates, Inc. Kenneth Renberg joined the firm in 1959, serving as vice president.

Although the company was initially limited on technical and support staff, by the early 1960s the firm began to grow and expand geographically. A second office was opened

in Los Angeles, California, from which it provided consulting services to the U.S. Navy's Elk Hills Naval Reserve. However, that office was soon closed as the emphasis of the business changed and all operations were consolidated to the Tulsa Office. In addition, the firm received a series of assignments from the U.S. Army Corps of Engineers to prepare appraisals of mineral rights that were to be acquired for the Arkansas River Navigation System. These involved appraisals of producing and non-producing properties in what became the Eufaula, Keystone and Oolagah Reservoirs.

Other assignments have involved productive areas in all geologic basins of the United States, Canada, Europe, the Middle East, Indonesia and many Latin American countries. The client base includes large and small independents, public and private oil companies, international and domestic major oil companies, investors, financial institutions, law firms and governmental agencies throughout the country. The firm bills the clients for its services on published hourly rates plus out-of-pocket expenses, although varying with the expertise of the professional.



Below (from left to right): Gordon L. Romine, Kenneth Renberg, Lee A. Keeling, John R. Wheeler, and Phillip W. Grice.





The firm maintains a staff capable of responding to the needs of its clients, and currently has a staff of seven professionals with an equal number of support and technical staff. When required, it will retain the services of other independent professionals with expertise not normally required in the firm's regular assignments.

The goal of Lee Keeling and Associates is to continue providing the same quality of services it has in the past by continually seeking new clients and ways to improve its delivery of services to its clients. As stated, the firm maintains associations with other independent consultants with varying expertise that can be called upon to satisfy a client's request. The firm remains aware of changing conditions and advances in technology so that these goals will be achieved.

Lee Keeling and Associates is also involved in a variety of community and charitable activities including the United Way Campaign of Oklahoma with increased contributions and participation by the staff. The United Way supports hundreds of local, state and community services for those in need.

In early 2011, the company was reorganized with Gordon L. Romine, who had joined the firm in 1963, becoming president. John R. Wheeler became vice president and Phillip W. Grice was elected as secretary-treasurer. Wheeler joined the company in 2001 and Grice in 2005. Lee and Kenneth remain with the firm.

The company's headquarters remain at First Tower, 15 East Fifth Street, Suite 3500 in Tulsa and at www.lkaengineers.com.



Lee Keeling and Associates is headquartered in the First Place Tower in downtown Tulsa.

RAMSEY PROPERTY MANAGEMENT, LLC

For more than five decades, Ramsey Property Management of Oklahoma City has provided a complete line of engineering, including reservoir engineering, drilling and completion supervision.

Throughout its history, quality, service and integrity have been an integral part of the Ramsey Property Management approach to serving each customer's particular needs. Ramsey's drilling and completion services have been respected as "the right way" for nearly sixty years, and the firm is still managing properties that have been producing oil and gas for that long.

The company began when Jim R. Ramsey left Standard Oil of Indiana to become an independent consultant in Oklahoma City. In 1955 he incorporated the firm as Ramsey Engineering, Inc., to provide quality petroleum engineering services to the industry.

Ramsey, along with Barth Walker and Paul Peterson, founded Oil Law Records in 1956 to provide a source for oil records data from the Oklahoma Corporation Commission. The three men maintained ownership until it was sold and became part of Petroleum Information, later known as PI-Dwights and then IHS.

Ramsey owned Ramsey Engineering from 1955 until 1972. In 1966, Charles G. Massey left Pan American Petroleum Company to join Ramsey and, six months later, convinced Robert L. Waller to leave Pan American and join Ramsey as well. Massey and Waller bought the company from Ramsey in 1972.

Massey and Waller owned and operated the firm together as equal shareholders until 1982 when the consulting and reserve evaluation division was spun off to Massey and was known as Ramsey Engineering, Inc. Waller kept the field operations and drilling

consulting phase of the business, which was operated as Ramsey Property Management, Inc. Massey continued his business until his death in 2006.

In 1988, Stephen E. Nichols came to work for Ramsey Property Management as a production and reservoir engineer having previously worked for Exxon Corporation for six years. In 2001, through an agreement with Waller and Nichols, Ramsey Property Management, LLC, was formed and Waller was bought out of the company over five years through a net profits agreement.



On April 1, 2006, Nichols became the sole owner of Ramsey Property Management, although Waller still maintains an office in the firm's headquarters at 2932 Northwest 122nd Street in Oklahoma City.

Ramsey Property Management, LLC currently has three employees: Stephen E. Nichols, owner/manager, Sandra Shaver, administrative assistant, and Floyd Morris, production superintendent. The firm's accounting function was outsourced in 2000 when Ramsey sold its accounting program to its current accountant.

Though petroleum engineering is generally perceived as a group of qualified people capable of drilling a well, the requirements



Clockwise, starting from the top:

Jim Ramsey.

Jim Ramsey, March 1979.

Robert L. Waller.



not unusual for the firm to drill fifteen to twenty wells for a client who then realizes they can start their own company and operate the wells themselves; based on the overhead income they have been charged. Ramsey accepts this as the normal course of business, as the contract with clients includes only a thirty-day notice to terminate services.

Ramsey Property Management currently drills five to ten wells for its clients each year and is always on the lookout for potential new clients. The firm's revenue business allocation is fifty percent operations of oil and gas wells, and fifty percent reservoir engineering for clients.

Ramsey Property Management bases its reputation on its professional service. That quality and commitment extends to each client it works with.

For more detail about Ramsey Property Management, check the website at www.ramseyllc.com.



Above: Robert L. Waller.

Below: Stephen E. Nichols.

of professional petroleum engineering go much beyond this traditional concept.

Today, petroleum engineering involves prospect evaluation, detailed cost management, and a multitude of other specialized skills, which Ramsey has developed over more than half-a-century.

Ramsey Property Management believes that professional petroleum management is much more than spudding a well. It is a wide range of services for finding cost effective solutions to expensive drilling, completion, and production problems.

Ramsey operates fifty-four wells in Oklahoma, Texas, and Colorado. The company is also permitted to operate wells in Kansas. In addition, Ramsey performs annual reserve reports for several independent oil and gas companies in Oklahoma City and surrounding areas, along with estate evaluations for attorneys.

Ramsey Property Management provides a niche in the oil and gas industry as a contract operator. It is



LANE'S MOTOR FREIGHT LINES, INC.

For more than twenty years, Lane's Motor Freight Lines, Inc., has specialized in moving oilfield equipment and drilling rigs across the southern plains of the United States.

Mike and Linda Hensal founded the company in May 1990, at a time when the industry was depressed and few businesses were involved in moving large equipment. It was a slow and steady start that was energized when they were awarded a job transporting compressors from Oklahoma City to Hugoton, Kansas for J-W Operating. When the customer asked Mike to begin hauling rental compressors back to Oklahoma City, he quickly said yes.



in moving drilling rigs for a diverse group of over 100 oil and gas companies.

Today, Lane's Motor Freight Lines and Mike's Trucking provide trucking services in Oklahoma, Kansas, and Texas, with specialization in moving drilling rigs, hauling and setting compressors, moving pumping units, hauling tanks and setting up tank batteries. Their services are provided to oil and gas drilling and producing companies within the Mid-Continent region of the United States and typically cover well sites

For Mike, the experience was reminiscent of the person who was most instrumental in his life and career—his father. Mike's father was always willing to share his hard earned wisdom with his son and often told him, "If you can be loaded both ways, you break even!" He was also the man who taught him everything about moving rigs.

The company moved its first drilling rig, the Hickman #6, from north of Woodward to Strong City, Oklahoma, in July 1994. They had just one truck at the time, but gradually built their production work into a company that now includes more than 60 employees, 38 trucks, 3 cranes, and nearly \$30 million in revenue as their focus remains primarily



within 150 miles of Lane's headquarters in Woodward. Their customers vary widely in size, ranging from billion-dollar public exploration and production companies to single-location family wells.



support the Cure for Cancer Walk as well as anything that involves their local school system, sport, and FFA. Mike says, "It's also been fun to be able to work with our friends and neighbors over the years, to be able to help each other out in times of need. We really don't look at this as a job. It's what we want to do."

The Hensals have always managed the company with a mission to help others. They

Lane's Motor Freight Lines, Inc. is located at 5015 Western Avenue in Woodward.



The diverse art treasures displayed in the Oklahoma State Capitol include this mural, Oklahoma Black Gold, by artist Jeff Dodd. It hangs above the entrance to the Senate Chamber and was dedicated on November 17, 1996.

KWB OIL PROPERTY MANAGEMENT, INC.

KWB Oil Property Management, Inc., was founded by C. H. Keplinger, J. M. Wanenmacher, C. Arnold Brown, and Patricia I. Brown on March 15, 1963. The company began operations with a two-room lease in the Kennedy Building in Tulsa, Oklahoma. The first employee and company secretary was Pat Brown, who was responsible for typing, filing, and answering the phone. The company was originally organized to furnish oil and gas field operations and engineering supervision to independent operators, small oil and gas companies, banks and individuals.

The company was started when Brown discovered a major portion of his activities were devoted to handling oil field management including planning and supervising drilling wells, well work-overs, designing and installing waterflood projects and numerous other field consulting projects.

Key employees in the early days included Jess Nutter, Ken Estes, Joe Lawnick, Charles Ellis, Ashley Houghton, Eunice Jamison, Marilyn Vaught, Bill Burk, and Mary Allison.



Later Bruce Galbierz, Bill Bass, Mickey Robertson, Mike Vaughn, Ken Richardson, Gaylen Howe, Peggy Banks, and Gary Johnson joined the company.



When the company was first formed, Keplinger and Wanenmacher had outstanding reputations in the oil and gas business as petroleum consultants. Their primary service was appraisals of oil and gas interests and properties for individuals, estates, banks and governmental agencies. Occasionally they would get requests for assistance on field applications. Brown received his early training primarily in the field with Skelly Oil Company, so the formation of an operating company with these three men was a good fit.

The company's first operations client was Norbla Oil Company owned by the Peters Family. Their operated properties were located in Osage, Pontotoc, and Washington Counties in Oklahoma. Other consulting activities included drilling well and completion supervision in Oklahoma, Arkansas, Louisiana, Texas, New Mexico, Kansas, Colorado, Wyoming, Montana, Illinois, Indiana, and the provinces of Alberta and Saskatchewan, Canada, for David Beach, J. A. Chapman estate, Mapco Production Company, Mabee Petroleum Company, H. A. Chapman, and Russell T. Lund.

Business progressed slowly in the 1960s; however, in 1965, the opportunity arose to install and operate a waterflood project for Mapco Production Company in southern Arkansas. This was a group of properties



Above: Arnold Brown.

Below: Ken Estes.



When these problems were known and addressed, the leases operated smoothly and with a profit.

The company continues to furnish petroleum engineering, geology, field operation and drilling well supervision as well as land and accounting services to independent oil companies, including individual and financial institutions, with present company headquarters located at The Thompson

purchased from a local operator. Mapco requested the company furnish all of the operating personnel, including the well servicing units and an equipment supply company. After a successful installation and realizing oil stimulation in a majority of the field, Mapco decided to sell. This action forced KWB to sell their equipment (pulling units, supply warehouse, pickups, etc.) and look for new business.

The company retained their field engineer in Magnolia, Arkansas. During this time the company was still reviewing drilling prospects originated by geologists in the Shreveport and North Louisiana area. In December 1967 the company recommended a geological prospect to the H. A. Chapman Estate combine located in Tulsa. This prospect, located in southern Arkansas in T19S, R23W, Lafayette County, was designed to test the Smackover formation at around 10,800 feet. The well resulted in a major discovery, ultimately a Smackover producing area of approximately twenty-five square miles. The H. A. Chapman project lasted several years with the unitizing of Walker Creek field for enhanced recovery.

When KWB was contracted to manage and operate the oil and gas properties, the company worked very closely with the owners and employees until they knew about the personnel and operating problems that might exist.

Building, Suite 1100, 20 East Fifth Street in Tulsa, Oklahoma. Present employees include President Arnold Brown; CFO Michael Vaughn, 31 years; Vice President Laurie Brown Purser, 24 years; Lisa Hickerson, accounting, 26 years; Cheryl Arthur, land secretary, 17 years; Craig Horine, field supervisor, 12 years; and Robert Weeden and John Weeden, field roustabouts.

The company also continues to be active in the community, supporting organizations such as Tulsa United Way, Boy Scouts, Girl Scouts, and the Rotary Club.



Above: Ken Estes and Ralph Abercrombie.

Below: Ashley Houghton, Bruce Galbierz and Charles Ellis.



CAPITAL ADVISORS, INC.

SOUTHWEST FINANCIAL SERVICES, LLC



Above: Left to right, Monty Butts, Sheryl Bashaw, Jeff Bashaw, Keith Goddard, Dave Cole, Channing Smith, and John Hastings.

Below: Left to right, Dave Cole, Sheryl Bashaw, and Jeff Bashaw.



Amassing a fortune in the volatile oil and gas business is one thing. Preserving that fortune is an entirely different proposition. This is where Capital Advisors, Inc., can be a valuable advisor.

For nearly thirty-five years, individuals and institutions have relied on Capital Advisors to provide investment services during unpredictable economic times. An account managed by Capital Advisors combines efficient financial planning, sound investment strategy and comprehensive reporting of portfolio results.

These services are provided to private business owners and high net worth executives on

a fee only basis. Capital Advisors sells no products; instead our unbiased and independent financial planners assist clients from start-up to mature operation. In addition, we provide transitional planning for the next generation of owners or third party buyers.

Capital Advisors was formed in 1978 and has always been privately owned as an independent investment advisor. Southwest Financial Services began in 2004 and combined with Capital Advisors, Inc., in 2012.

The founders of Southwest Financial Services were David A. Cole, CPA, PFS, ChFC, CLU; George F. Bashaw, Jr., CLU; and Sheryl H. Bashaw, CLU. According to Cole, the founders decided from day one to represent only individuals with a minimum of \$1 million in investible assets. "This allows us to

focus 100 percent of our effort on the issues of high net worth clients," Cole explains.

The company grew to \$100 million in assets under management within four years. Advisors worked hand-in-hand with clients during the crash of 2009 to preserve capital, a challenge that enhanced the firm's reputation for expert unbiased financial advice.

Southwest Financial combined with Capital Advisors, Inc., in January 2012 increasing the combined asset base to more than \$1 billion. The company is headquartered in Tulsa and maintains offices in Dallas, Houston, and Oklahoma City.

Capital Advisors focuses on the factor that matters most for investors—asset allocation. We are committed to discovering and applying the most innovative ideas for the benefit of our clients, whether those ideas emerge from internal resources, academia, or strategic partners.

Beyond the direct role Capital Advisors plays in the management of our client's investment assets, we offer indirect access to a comprehensive network of related professional services in the fields of accounting, legal, insurance and trust services.

The wide array of financial planning services provided by Capital Advisors includes retirement planning, personal financial planning, estate planning, cash flow analysis, risk management/insurance, investment analysis and management, stock options/deferred compensation, tax planning, philanthropy, generational wealth transitions, investment policy statements, and investor education.

Capital Advisors has sixteen employees in four locations and is active in many local and national charitable and professional organizations.

For more information about Capital Advisors, visit the website at www.capitaladv.com.

For more than forty-seven years, Xcorp, founded by Jeff and Sheryl Bashaw, has provided innovative and leading life insurance products, wealth services and employee and executive benefit plans to individuals, business owners, corporations, executives, and employees.

As the only Member Firm in Oklahoma of M Financial Group (mfin.com) since 1979, Xcorp joins 133 other Member Firms which, together, are ranked as the dominant, highest-quality providers of life, disability, and employee benefit insurance products and services in the United States. The Bashaws are shareholders of M Financial and are pleased to support M Financial's unparalleled commitment to in-force management and client advocacy with the nation's largest insurance carriers.

Member Firms have more than \$123 billion of life insurance face value in force and manage client assets in excess of \$33 billion.

A unique combination of the buying power of its collective clients and the innovative approach of reinsuring a portion of its own business through M Financial Re (a subsidiary of M Financial with 2010 assets of \$11.5 billion) has resulted in industry leading carriers willing and eager to help M Financial create exclusive access to distinctive financial solutions. These



carriers have delivered proprietary product pricing and underwriting based on the superior mortality experience of member firms.

Xcorp also specializes in offering a complete menu of employer and employee-paid benefit products and solutions. Purchasing a company's employee benefit package is one of the biggest challenges faced by today's business executives. Xcorp is the expert in employee benefits and has designed exemplary plans for firms with as few as two—or as many as 40,000 employees. One of the most memorable challenges in this area was to maintain coverage for a client's employees who were on the ground working in Iraq even before the Marines got to Baghdad during the 2003 Iraq War.

Considered one of the most knowledgeable experts in his field, Jeff has testified before the U.S. Congress about the life insurance industry. Sheryl, president of Xcorp, has an extensive and broad based background in the insurance industry with experience in marketing, agency management, and sophisticated insurance plan designs.

Backed by a team of experienced professionals, Xcorp continually strives to keep abreast of changes and challenges in the life insurance and employee benefits industry. Xcorp takes a long-term view of its business relationships and operates according to a strong code of ethics.

For more information about Xcorp, visit their website at www.XcorpFinancial.com.



Above (front to back): Jeff Bashaw, managing director; Sheryl Bashaw, president; Zoe Simpler, employee benefits broker; Susan Kirk, director, employee benefit services; and Jason MacDonald, marketing specialist.

Below: Sheryl and Jeff Bashaw.



HIGH PLAINS TECHNOLOGY CENTER



Clockwise, starting from top, left:

Students leaning how to use power tongs to run tubing.

HPTC's new simulator in action.

Steve Adams speaking at the dedication of HPTC's fourth training simulator.

The oil and gas industry in Oklahoma faced a serious manpower shortage in the late 1990s. Many skilled workers had left the industry in the wake of the industry downturn of the late 1980s and early 1990s. At the same time, other highly experienced workers had reached retirement age and dropped from the employment rolls.

Early in 1999, High Plains Technology Center in Woodward, Oklahoma, was approached by the oil and gas companies and

asked to provide needed training for new jobs made possible by an upturn in drilling, servicing and production activity. These individual companies were joined by the Mid-Continent Oil and Gas Association and other associations at a meeting with various Oklahoma Tech Centers. High Plains Technology Center (HPTC), represented by Dr. Bill Jackson, was the only center to make a firm commitment to help train new employees for the industry.

After HPTC made the commitment, the industry responded by providing financial support and donating equipment. With the support of HPTC Superintendent Dr. Don Dale and the HPTC Board of Education, the process began to establish the Mid-Continent Oil and Gas Training Center. Two part-time instructors were hired; J. C. Ellis for well servicing and Mike Whipple for drilling.

The demand for industry training was increasing primarily because of enrollment in the oil and gas classes, and this created a classroom space challenge. A proposal was made to Dr. Dale for the construction of a building to accommodate oil and gas activities, along with other industry and government training classes. Dr. Dale indicated he

would allocate funds to purchase a building if donations were secured for the other services needed for completion.

A number of businesses and local governments contributed to the project and services were secured for electrical, plumbing, heating, and air conditioning, site work, concrete and building erection. The result was a 50-by-100-foot metal building with three classrooms, restrooms, offices and an open area for skill training. Major supporters of this project were Terra Industries and the city of Woodward.

There was also a need for quality skill training in the well servicing area that required a rig and dry well bore. Pool (Nabors) Well Servicing provided the first rig and Key Energy provided the second. Donations were secured to drill a dry well bore using a rig from Key, with other services provided by BP America and BJ Services for pipe and cement respectively.

The initial curriculum included basic knowledge and skills needed to perform entry level skill jobs for both areas. Safety instruction was embedded in the training since forty percent of the accidents that occur in the industry involved workers with less than two months on the job.

The program continued to grow under the direction of the HPTC administration and Jackson, who served as assistant superintendent of business and industry.

Early in 2003, HPTC learned, during a meeting at the IADC Conference in Houston, that funds were available from the U.S. Department of Labor, Employment, and Training Division to support the domestic oil and gas industry by developing classroom and hands-on training not available anywhere else in the nation. Industry leaders and oil and gas associations encouraged HPTC to pursue the funding for such a training center. Late in 2003, HPTC was awarded a \$1.5 million grant to hire staff and

provide needed training to meet the increasing demands for skilled workers. HPTC was awarded a second DOL grant in 2005 for \$2.4 million funded through the Oklahoma Department of Career and Technology Education (CareerTech). There were 6,780 individuals trained during the two grants, with a placement rate of seventy-nine percent after six months of employment from the sample surveyed.

The curriculum was expanded to include new areas of training in drilling, servicing and production jobs. Ron Walsmith was hired as the center's director and instructors were hired, curriculum manuals written and certifications received.

The federal grant enabled HPTC to provide no cost training to qualified unemployed individuals who passed an entrance test that included drug testing. Meals and lodging were provided to individuals who qualified.

OSHA-approved classes added to the curriculum included confined space entry and rescue, hydrogen sulfide detection, entry and rescue, trenching and shoring, design entry and rescue, line location safety, and all-terrain vehicle operation. Training continued with the initial classes and with additional classes in Kansas, Pennsylvania, North Dakota, and West Virginia.

Since the curriculum was developed with OSHA approval, representatives from the oil and gas industry formed an organization called the Energy Training Council (ETC). The Council's function is to promote safety instruction to large and small companies that need the required safety training to enter an operator's production location. The areas of



instruction are currently being offered throughout the United States as a means of obtaining the safety instruction required.

Since the inception of the program at High Plains Technology Center, we have trained over 10,000 potential workers in skill areas designed to help employees to work as safely as possible in the oil and gas industry.

Classes currently being offered include: Safeland USA, OSHA, forklift, medic/first aid, production lease technician, floor hand training for drilling, and floor hand training for well servicing, as well as numerous other safety classes.

The training is unique in that participants use simulators and hands-on training, coupled with time in the classroom, to ensure students are trained in the most realistic environment possible.

High Plains Technology Center is committed to providing the highest quality training to strengthen the work force for our domestic energy industry.



Above: Training rigs on HPTC's Mid-Continent Oil & Gas Training Center campus in Woodward.

Bottom, left and right: Employees of Oklahoma's OSHA Consultive, a state organization that helped drilling companies be in compliance with federal safety laws, get training on how to throw a spinning chain at the HPTC's Mid-Continent Oil & Gas Training Center campus in Poteau.



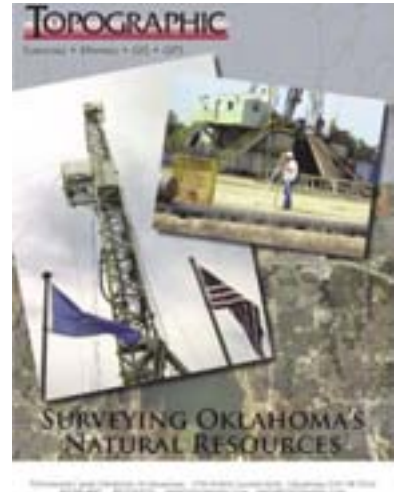
TOPOGRAPHIC ENGINEERING Co.

As the west developed in the latter part of the nineteenth century, land surveys were vitally important for the settlement of Oklahoma and other western territories. Accurate land surveys were considered so important that Congress approved the Land Ordinance of 1785, which established the policy of “survey before settlement.”

The original thirteen colonies had been surveyed using the British system of metes and bounds, where boundary lines might be described as “beginning at a large oak tree and continuing south to a rocky creek.” This system proved inadequate as the country expanded and was replaced by the Public Land Survey System (PLSS) or the rectangular survey system. The system was developed by the author of the Declaration of Independence and third president of the United States, Thomas Jefferson.

The PLSS system worked reasonably well in the early days of western expansion. But as the population grew and settlement became denser, there was a need for more sophisticated surveying techniques. A leader in the development of these techniques beyond the old metes and bounds system was John Keating, founder of Topographic Engineering Co. of Oklahoma City.

For more than fifty years, Topographic has set the standard for surveying, mapping and GIS in the Southwest. Topographic’s heritage of cutting edge technology and customer focus began with its founder and continues to be the source of the company’s success.



John was born in 1921 and grew up in Loveland, Colorado, where he learned the virtues of honesty and hard work from his parents and a large extended family. He graduated from high school in 1939, but his parents had little money during those depression days to send him to college. Undaunted, John learned of Woodbury College in California, where school officials promised him a job that would allow him to pay his tuition.

World War II had begun when John graduated from Woodbury in 1942 with a business degree. Ten days later, he joined the Navy and was assigned to the Los Angeles branch of the Office of Naval Intelligence, which was responsible for translating and evaluating intercepted Japanese communications.

John was then recommended for officer training school and transferred to Colorado Springs, Colorado, where he took engineering courses at the Colorado College. His next assignment was with the NROTC on the campus of Oklahoma University in Norman. There, at a campus dance, he met Helen Laughlin and they soon became engaged.



Below: John Keating celebrates the groundbreaking for Topographic's new building in the early 1980s.



John received his degree from Oklahoma University in 1945, along with a commission as a Navy officer, and was assigned to a Navy seaplane tender patrolling in the Pacific near Japan. Shortly after his discharge in 1946, John and Helen were married and the young couple moved to Denver, where he went to work for the largest drilling contractor in the Rocky Mountains.



When Helen became homesick for Oklahoma, John moved his young family home to the Sooner State and went to work for his father-in-law's surveying company.

John did well in his new job but the marriage began to deteriorate and, in 1957, he and Helen divorced. At the age of thirty-six, John found himself with no home, no family and no job. He moved into a room at the YMCA in downtown Oklahoma City and pondered his future.

His work as a surveyor had convinced John there was an opportunity in the petroleum industry for top quality surveying and mapping. At the time, companies eager to drill often received quick and inaccurate surveys and John felt a company could be successful if it offered more accurate surveys along with an expanded list of surveying services. He evolved the plans for a company that would survey the land, stake the location, and provide all available data on a specific drilling location.

John had the desire to operate his own business, but had little money, no credit and no surveying equipment. He shared his idea with a friend, Robert "Bob" Blubaugh, an engineer/surveyor with the Oklahoma Highway Department, who agreed to invest in the company and become a silent partner. John's brothers, Joe and Paul, loaned the company a small panel truck and Blubaugh obtained some used surveying equipment from the Highway Department's surplus stock.

With the borrowed truck and state surplus equipment, Topographic Engineering Company opened for business in Duncan, Oklahoma, on January 1, 1958.

The new company soon began to grow and expanded its services beyond staking locations for new oil and gas well sites. The company took jobs to verify energy company lease boundaries and survey routes and right-of-way limits for new pipelines and power transmission lines. Topographic also surveyed creeks and rivers to determine ownership of underground mineral rights.

Meanwhile, John had met Barbara Murray Wheeler, a home economics professor at the University of Central Oklahoma, and the two were married in 1961.

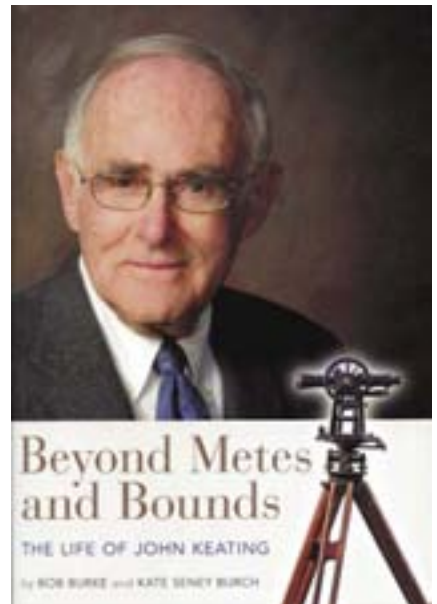
Like most growing firms, Topographic experienced growing pains and tough times, but an ability to change with the times has enabled the company to survive the hard times and continue to grow.

John's son, Robert, eventually succeeded him as president of the company and John became chairman of the board. Reflecting on his life and his enormous contributions to the oil and gas industry, John said, "I have been truly blessed with an outstanding family, good health, sound mind, and the opportunity to build a successful business. But the most prized possession is the love of my family."



Left: Robert Keating became chief executive officer of Topographic in 1989.

Below: The biography of John Keating, Beyond Metes and Bounds, was released by the Oklahoma Heritage Association in 2008.



OKLAHOMA INDEPENDENT PETROLEUM ASSOCIATION

Since its founding in 1955 the OIPA has been the voice of Oklahoma's independent oil and natural gas producers.

In the 1950s, beset by ever-increasing taxation and regulation on the state's cornerstone industry, a small group of Oklahoma independent producers decided they could have a more effective voice in the corridors of power if they organized. So, in January 1955, Roy Woods called together twenty oilmen from across the state to form the Oklahoma Independent Petroleum Association.



Right: One of the first OIPA board of directors included members. Seated: Ward Merrick, Robert Hefner, Jr., Paul Schultz, Rusty Cobb, R. O. Melton and John Owens. Standing: Carl Anderson, Jack Berry, Ed Minnis, John Robertson, Russell Patterson, Evie Davis Wood, President Roy Woods, Francis Duncan, Dewey Bartlett and Executive Director Max Genet.

Below: President Ronald Reagan shakes hands with OIPA President Jack Graves in the Oval Office as OIPA Vice President Ray Potts, U.S. Senator Don Nickles and Congressman Mickey Edwards look on.



But in its fledgling years, the OIPA struggled. Ten years after Woods first took office as the founding president; the association fell on difficult financial times. But in 1966, independent drilling contractor E. A. Smith laid

down \$20,000 to give the OIPA a new home in Tulsa and opened a new chapter in the association's history.

That financial boost spurred the OIPA to success, and for the next half a century independent producers rallied together to curb monopolizing pricing practices of oil and gas purchasers and pipelines, enact the nation's model groundwater protection rules and exempt small producers from an onerous windfall profits tax.

From the ranks of the OIPA rose state and industry leaders. Robert S. Kerr, a lawyer turned oilman from Ada, was elected governor and then U.S. Senator, where he became "the uncrowned king of the Senate." Dewey E. Bartlett of Tulsa emerged in the 1960s as the first major political champion for small independent producers as governor and U.S. Senator.

OIPA developed the reputation as a proactive and effective industry advocate. The OIPA created one of Oklahoma's first political action committees to consolidate campaign funds in support of legislative candidates willing to carry the independent producer message to the capitol. The association also moved its headquarters from Tulsa to Oklahoma City in an effort to advance its advocacy efforts.

Beyond direct advocacy at the local, state and national levels, the OIPA emerged as the nation's leader in energy education. It was OIPA that conceived and created the Oklahoma Energy Resources Board, the nation's first and most high-profile oil and natural gas-funded education program.

Today, the OIPA is made up of more than 2,200 members in the crude oil and natural gas exploration/production industry and affiliated businesses. It is the state's largest oil and gas advocacy group, and one of the largest statewide petroleum groups in the nation.

The organization obviously includes the men and women who work in the production of crude oil and natural gas in Oklahoma. But it also numbers service companies, attorneys, accountants, bankers, retailers and even legislators among its members. The membership is diverse because, in one way or another, nearly everyone in the Sooner State is involved in the petroleum business.

The OIPA is committed to promoting the interests and welfare of independent oil and gas operators, working interest owners, royalty owners and those businesses that provide services for the energy industry. Specifically, the association strives to provide its members with outstanding legislative and regulatory representation, access to valuable information and excellent opportunities to develop business relationships.

In 2008, OIPA broke ground for a permanent association headquarters, thanks to the vision of past OIPA Chairman Harold Hamm, the work of building committee chairman Ronnie Irani and countless other volunteers, and, most importantly, the financial support of our members and supporters, who pledged more than \$5.6 million for the construction. The building that will house the OIPA and the OERB will be a stone's throw from our state capitol and will elevate the presence of our association among elected officials and our fellow Oklahomans.

While our presence in our home state is unmatched by any other oil and natural gas association in the country, the OIPA is also leading the way at our nation's Capitol. The OIPA is one of the only state energy associations with full-time representation at our nation's capitol. The addition of a federal lobbyist and the creation of the association's Federal PAC helps the OIPA shape congressional viewpoints beyond the Oklahoma delegation and add a trusted voice in federal energy policy debates.

Focusing on legislation, regulation and industry affairs; the work of the association is concentrated in these areas in order to be responsive to the ever-growing demands made on the industry by federal, state, and local governments and by the general public. Led by a staff of skilled professionals and supported by an active board of directors, the OIPA ensures the voice of every energy producer is heard.



Below: U.S. Senator Jim Inhofe speaks with OIPA board of directors members Ron Boyd and Rusty Johnson.



COPPERMARK BANK



Russell Swarts.

Russell Swarts was one of the original organizers of Coppermark Bank who saw the need for a local bank dedicated to excellent customer service in Oklahoma City. Swarts was raised in Carnegie, Oklahoma, and graduated from the University of Oklahoma College of Law in 1954 before serving as a JAG officer in the Korean War. He returned to Oklahoma in 1956 and began his career with an oil and gas marketing company. Swarts operated thirty-four Fina gas stations before moving into the banking business. He became a board member of the First National Bank in Yukon and banks in western Oklahoma. In 1971, Swarts was named chairman of the board of Guaranty Bank & Trust Co., which was founded in 1963 as Guaranty National Bank. He still holds that position today, at the same company now known as Coppermark Bank.

With Swarts' expertise in the oil and gas industry, the bank saw an opportunity to specialize in providing production-based lending to small and midsized energy companies. Today, the bank's energy group includes staff petroleum engineers and seasoned lenders. Coppermark's established reputation as an innovative, value-added source of capital to the independent sector is supported by the energy lending team and their full-service relationship approach to customers, offering customized solutions to fit their specific needs.

Coppermark Bank is an independently owned regional financial services company with assets of over \$1.2 billion. There are eleven banking centers in Oklahoma and Texas, with over 250 banking professionals serving customers in all 50 states and in several foreign countries. The bank is a wholly owned subsidiary of Coppermark Bancshares, Inc. A subsidiary of the bank, Bankers Credit Card Service, provides personal and business credit card services and a full range of merchant services to customers throughout the region.

One of Coppermark's primary goals is to reinvest in the communities in which it serves. Bank officers and employees provide financial expertise to community development organizations and serve on the boards of many charitable organizations. Among the organizations benefitting from Coppermark's philanthropic

efforts are the American Heart Association's Go Red for Women initiative, Junior Achievement, United Way, Boy Scouts of America, and the YWCA, to name a few. Coppermark has also been a sponsor of the Oklahoma City Boathouse Foundation's Regatta Series since its inception. As part of the MAPS Project to revitalize downtown Oklahoma City, the Boathouse Foundation seeks to help Oklahoma City become a stronger, healthier community through rowing, kayaking and other river-related activities.

In 2011, Coppermark was awarded the Federal Home Loan Bank Topeka's Community Leader Award in recognition of its community service, community lending, and high performance standards.

Coppermark Bank's mission is to provide customers with exceptional service by making banking easy, streamlined, secure and enjoyable. Coppermark realizes that banking is not simply a means to an end; it is a way to help customers get more out of life by helping them realize their financial goals.

Customers continue to say that there is something different about their experience with Coppermark Bank. Coppermark employees make the difference to their customers and are the bank's greatest asset.

For five years in a row, Coppermark Bank has been ranked one of Oklahoma's "Best Places to Work" by *OKBiz*. Additionally, Coppermark has been named among the "Best Places to Work" in the Dallas-Fort Worth area by the *Dallas Business Journal* and the "Best Companies to Work for in Texas" by *Texas Monthly*.

In 2007 and again in 2011, the Oklahoma Business Ethics Consortium awarded Coppermark Bank the Oklahoma Ethics Compass Award. The bank's president and CEO, Thomas Legan, said receiving the award demonstrates that the slogan, "The Bank You Trust For Life," reflects a long-standing company philosophy of doing what's right and fair for the customer. Swarts plays an integral part in Coppermark's success. Every month, he makes over 150 personal visits to Coppermark customers and prospects, further demonstrating the bank's philosophy and mission. Coppermark would not be the success it is today without Swarts.

THE UNIVERSITY OF TULSA

The University of Tulsa (TU) is a private university where dedication and integrity are central to its mission. The university provides undergraduate, graduate, and doctoral degrees, demonstrating professional education in the arts, humanities, sciences, business, education, engineering, law, nursing, and applied health sciences.

Originally founded in 1894 as Henry Kendall College, TU was formally related to the Presbyterian Church with its roots in the Presbyterian School for Indian Girls. This school, founded in 1882, was a small boarding facility located in Muskogee, Indian Territory. The Presbyterian Church later elevated the school's status and changed the name to Henry Kendall College. Henry Kendall College was then relocated to Tulsa where another new college was proposed, to be named after oilman Robert M. McFarlin. The two schools merged to become The University of Tulsa on November 9, 1920.

TU is staffed with an exceptional faculty and maintains a humanities-based general curriculum that stimulates scientific, social, and artistic studies in addition to graduate, professional, and research programs that foster advanced theoretical development.

In addition to TU's numerous degree programs, the Energy Management Program was implemented to prepare tomorrow's leaders through an energy-focused, interdisciplinary curriculum for careers in the Upstream (exploration and production) or Mid-stream (trading of energy commodities) sectors of the global energy industry.

Graduates coming out of the Energy Management program can move into full-time

employment with competitive salaries. Employers of EM graduates are likely to be major oil companies, large and small independent companies, and financial institutions. Ted K. Jacobs is the director of the Energy Management program with almost twenty years of varied experience in the energy industry.

TU also boasts an internationally recognized petroleum engineering program. Since its inception in 1928, the petroleum engineering program is recognized as one of the best in the world, attracting students from every part of the globe where oil and gas is produced. Since 1933 we have graduated both international and domestic students who serve prominently in the industry. In 2010, the department received a sizable donation from oilman Jeffrey McDougall changing the name of the department to McDougall School of Petroleum Engineering

The petroleum engineering program provides both undergraduate and graduate degrees in petroleum engineering. We provide a balanced undergraduate degree with equal exposure to reservoir, production and drilling disciplines. Our faculty is involved in various research activities garnering research funding from more than sixty oil and service companies worldwide. We have a twenty acre industrial research facility where we conduct field scale experimental research in the areas of multi-phase flow, heavy oil, artificial lift, separators, drilling, paraffin wax deposition, and gas hydrates.

TU's two-hundred-acre campus is located at 800 South Tucker, two miles east of downtown Tulsa. For more information visit the school online at www.utulsa.edu.



JOHN M. CAMPBELL & COMPANY

Founded nearly half a century ago, John M. Campbell & Company (JMC) is a dedicated partner of the energy industry. JMC designs, develops and delivers world class technical training programs for oil and gas facilities engineers worldwide.

Though the company was officially incorporated in 1968, their history began in the 1950s when Dr. John M. Campbell, Sr., published a fifty-four part series on surface production facilities in the *Oil & Gas Journal*. These articles became the basis for the original *Gas Conditioning and Processing* textbooks.

Dr. Campbell taught the first *Gas Conditioning and Processing* training programs in the 1960s while he was director of the Petroleum Engineering Department at the University of Oklahoma. The early success of these programs led to the formation of the company and the course is now well known as "the Campbell Gas Course"[™].

In conjunction with the North Sea discoveries in the 1960s, JMC soon spread its influence with two London training courses in 1966 and 1967. By the mid-1970s, several outstanding experts joined the company, including Charles (Charley) Patton with a textbook on produced water in 1974; Dr. John H. Erbar, Olan Boyd, Dr. Robert Maddox, Dr. Ken Starling, Dr. Larry L. Lilly, and Robert A. Hubbard.

Today, JMC is the premier worldwide training company in the areas of gas processing and oil and gas facilities, now offering

courses in ten engineering areas. Course instructors average thirty years of industry experience, and remain widely published in technical periodicals. They currently direct 250 sessions per year in oil and gas hubs around the world in diverse locations such as Angola, Nigeria, Saudi Arabia, United Arab Emirates, Kazakhstan, Russia, Malaysia, Singapore, South America, Canada and Australia. They also play an active role in the industry and are involved in the Society of Petroleum Engineers (SPE), the Gas Processor's Association (GPA), and updates to the GPSA Engineering Data Book while also volunteering time to regional chapters and international organizations.


In 2003, John M. Campbell & Company was invited to become the exclusive facilities training provider for the PetroSkills Alliance. The PetroSkills Alliance is an affiliation of member companies and service providers committed to being the industry leaders in petroleum training. Through a foundation of competency-based learning and development, the PetroSkills Alliance ensures that the course content of John M. Campbell & Company training is relevant because it is guided by the industry we serve.

The company has approximately 50 employees and is headquartered at 1215 Crossroads Boulevard in Norman, Oklahoma. Additionally, they have approximately 70 contract instructors who live worldwide, including the USA, Canada, United Kingdom, Bahrain, and Malaysia.

The company is a proud supporter of a variety of projects throughout the community in which it serves. Historically, JMC employees participate in fundraising for the American Heart Association and participate in the HeartWalk. At Christmas, JMC employees often sponsor families from The Women's Resource Center Shelter of Norman and provide mothers and children with gifts.

John M. Campbell & Company is located at www.jmccampbell.com.



 Above (from left to right): J. H. Sullivan, Bill Carson, Dr. John M. Campbell, Carl Cloud, and R. L. Huntington, Gas Hydrate Conference, 1951.

Below: JMC employees and instructors.



The Colonial Royalties Company and its stockholders have been active in the oil business from its very beginnings. The first oil scouts association was organized in Cherrygrove, Pennsylvania, in 1882 and among its leaders was Jo. P. Cappeau, a founder of CRC.



As an oil scout in Western Pennsylvania, Cappeau used his ability as a telegraph operator to send information quickly to his sponsors in Pittsburgh. The telegraph was much faster than messengers or mail, allowing the stockholders to act much more quickly.

The Colonial Royalties Company was organized in 1921 with Cappeau as one of the incorporators. Several pioneer Pennsylvania oilmen were among the first stockholders, including M. L. Benedum, J. C. Trees, D. W. Franchot, Walter Hallanan, the Wittmers, H. H. Phillips, F. F. Cashdollar, Barney Dreyfuss, Lee C. Morganroth, C. F. DeGolier, the Crawfords, Norwood Johnson, and the Craig family. These pioneer oilmen have passed on but their families continue to be loyal Colonial partners.

The firm's first property, acquired on May 1, 1921, was a 1/16th royalty interest in

the production from two acres in Wichita County, Texas. Crude oil was selling then for \$2.25 per barrel and the 1/16th royalty cost \$1,485.

At the end of its first year, CRC had acquired five royalties and had a gross income of less than \$10,000. In succeeding years, overproduction in East Texas, low crude prices of \$1 per barrel or less, and proration-restricted production kept income low. However, CRC continued to acquire more properties.

When Harold E. Rorschach became the firm's fourth president in 1955, total property investment was \$373,000 and gross income was \$32,000. When Rorschach died in 1977, CRC owned 45,469 net acres of mineral interests, with a gross income of \$520,000. Property acquisitions continued until the distribution of stock to the partnerships in 1988. At that time, there were about 3,000 properties in 23 states.

A visionary leader, Rorschach anticipated the development of deep gas in the Anadarko Basin before technology was available to produce it economically. He made substantial CRC investments in mineral interests at favorable prices in that area. Rorschach, who presided over the majority of CRC growth, believed in diversity of royalty investments, which resulted in a wide area distribution of CRC properties.

The stock distribution in 1988 included three partnerships formed by the stockholders. Two of the partnerships, Pentagon Oil Company and Chaparral Royalty Company, are located in Kilgore and Houston, Texas, respectively. The third, Colonial Royalties Limited Partnership (CRLP) is headquartered in Tulsa, Oklahoma, although most administrative activities are carried on at an office in Broken Arrow. Under the leadership of current General Partner Robert L. Rorschach, CRLP had revenues of \$1.35 million in 2010 from 1,200 producing properties in twenty-three states.

CRC and its successor partnerships are believed to be the oldest continuously operating oil and gas royalties entity in the United States.

COLONIAL ROYALTIES COMPANY COLONIAL ROYALTIES LIMITED PARTNERSHIP



Left: Jo. P. Cappeau, first president, 1861-1944.

Right: H. E. Rorschach, fourth president of Colonial Royalties Company, c. 1975.

MAHAFFEY & GORE, P.C.



Founded in 1980, Mahaffey & Gore, P.C., has established a reputation as one of the pre-eminent energy law firms in Oklahoma. The reason is simple—they have more seasoned energy law attorneys than even the largest Oklahoma law firms. Across the board, no other firm in Oklahoma matches the experience in energy law including, but not limited to, regulatory matters, purchase and sale agreements, exploration and development contracts, and oil and gas litigation.

Conveniently located at 300 Northeast First Street in Oklahoma City, Mahaffey & Gore, P.C., is a full-service energy law firm that provides general business law counsel to independent oil and gas producers and interest owners. The firm also handles general civil litigation and all proceedings before the Oklahoma Corporation Commission.



The firm's attorneys are well equipped to handle all energy law matters, including: representing and advising oil and gas operators, applicants and respondents on Oklahoma Corporation Commission proceedings, simple and complex litigation such as contract, environmental, class action lawsuits, gas marketing, and joint operating disputes. The firm is also very experienced in disputes involving title, gas mismeasurement, surface damages, pollution, condemnation and related issues. The firm also renders oil and gas title opinions, which include analysis and preparation of acquisition, drilling and division order title opinions.

Mahaffey & Gore negotiates and drafts oil and gas contracts, leases, joint operating agreements, farmout agreements, exploration agreements, purchase and sales transactions, surface damage agreements and other energy related contracts.

The firm has extensive experience with providing advice and representation in the areas of business organizations, products liability, property issues, and Oklahoma real estate law.

The firm also deals with business and asset acquisition, representing oil and gas companies and other related entities in such matters as contracts, title transfers, purchase and sales agreements and more. The firm handles title and lease disputes and represents plaintiffs and defendants in matters involving mineral leases, mineral ownership and claims for lease cancellation. The firm also handles appeals in both state and federal appellate courts, including appeals from district courts and the Oklahoma Corporation Commission.

Mahaffey & Gore, P.C., is privileged to have such an excellent group of lawyers. The firm is AV rated by *Martindale-Hubbell*, the nation's oldest and most prestigious law directory.

For more information about Mahaffey & Gore, P.C., please visit www.mahaffeygorelaw.com.

PETROLEUM CLUB



Among the most elegant and timeless social experiences in Oklahoma stands Oklahoma City's landmark Petroleum Club. Founded along the flourishing skyline of downtown Oklahoma City in 1957, this premier private dining club has remained a consistent source of pride and legendary appeal in the storied history of Oklahoma's oil and gas industry.

Though the Club was originally founded to draw members of the state's burgeoning oil and gas industry in the mid-twentieth century in Oklahoma, it quickly became apparent that its growth would be stabilized by the invitation to members of the city and its outlying communities thriving business and civic organizations.

The decision to include a wider variety of associations in its membership was fortuitous and the Club soon became the preferred site for numerous civic organizations as their leaders began booking regularly scheduled meetings at the Club.

Today, the steady growth of the membership now includes over fifteen hundred people and organizations. The Club's stability and financial well-being are a clear reflection of its stewardship, which is overseen by longtime Executive Vice President Verej Jazirvar, who has now celebrated thirty-five years with the Club, and the outstanding and dedicated board of directors who have given generously of their time and talent throughout the Club's existence.

Jazirvar, well-known as "the strength of the Petroleum Club" and his staff have directed the Club through an exceptional period of growth since the dawn of the new millennium. Petroleum Club North opened at Interstate 35 and Sooner Road in the city of Edmond in August 2000. The highly successful Petroleum Deli opened in the Chase Tower in

2008. In 2009 the Jim Thorpe Event Center and the Petroleum Club formed a partnership in which the Club now provides exclusive fine catering at all events for the Center. The year 2010 welcomed the opening of the Petroleum Club Hot Tamale, which opened in the lower concourse of the Chase Tower. In the same year, the Petroleum Club and Willow Creek Golf and Country Club announced their partnership. And in 2011 work was begun on a \$2.5-million renovation in both the downtown and Edmond facilities of the Petroleum Club.

When city leaders first envisioned the Petroleum Club, former Club President Klaholt Kimker wrote, "Above all, they wanted to create an establishment that was recognized for its integrity of ambiance, consistency in quality, and recognized as the best among its peers."

Additional information is available on the Internet at www.petroleumclubokc.com. It is a sentiment that still rings true and indeed makes the Petroleum Club...the place to belong.



Above: Dining Room North.

Below: The Wilcox Room.



SPECIAL THANKS

The Cantrell Family

Koby Oil Co., LLC

Cherokee Horn Production, LP

Samson Investment Company

Enerwest Trading Company, L.C.

Stevens Trucking

Jack Terry Oil

Sullivan & Associates

Kim Booth

SPONSORS

Apache Corporation	256
Arvine Pipe and Supply Company, Inc.	300
Atchley Resources, Inc.	246
Avalon Exploration, Inc.	228
B.O.P. Ram & Iron Rental, Inc.	276
Best Oilfield Service, Inc.	272
Boone Pickens School of Geology at Oklahoma State University.....	314
Kim Booth	352
Bracken Energy	200
Breitling Oil and Gas.....	180
Brown & Borelli, Inc.	224
The Cantrell Family	207, 352
C. E. Harmon Oil, Inc.	220
Calvin Mays Oilfield Services, Inc.	282
Capital Advisors, Inc./Southwest Financial Services, LLC	338
Carl E. Gungoll Exploration, LLC	192
Cherokee Horn Production, LP	352
Chesapeake Energy Corporation.....	176
Colonial Royalties Company/Colonial Royalties Limited Partnership	349
Continental Resources, Inc.	242
Coppermark Bank	346
Cummings Oil Company.....	251
Dean's Casing Service	274
Devon Energy Corporation.....	222
Eagle Energy Company of Oklahoma, LLC.....	240
EnergyNet.com, Inc.	308
Enerwest trading Company, L.C.	352
Fred's Rat Hole Service	277
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