

A history of **fuel** innovation



From Petroleum to Peak Performance

A History of Fuel Innovation

By Shelley Mika

THE EARLY YEARS

In 1900, there were only 8,000 cars in the entire United States. Just a decade later, 450,000 cars were traversing America's early roadways. Today, there are more than 130 million cars in the United States. With such tremendous and constant growth, the fuel industry has had to continually evolve in order to power these vehicles for the last 100-plus years.

Starting in the late 1800s, fuel company representatives traveled throughout the world, facing unbearable conditions and unusual setbacks to search for viable oil resources. BP, now one of the largest global producers, manufacturers, and marketers of oil and gas began its travels in these early years and has been committed to producing new and innovative fuels ever since. Its own rich history entails some of the innovations in fuel production from the time of the first explorations.

The American petroleum industry began with Edwin Drake's discovery of oil in 1859, near Titusville, Pennsylvania. The industry grew slowly in

the 1800s, driven by the demand for kerosene and oil lamps. It became a major national concern in the early part of the 20th century with the growth in popularity of the automobile. BP, along with Amoco with which it later merged, grew rapidly during this time due to their constant innovation.

WORLD WAR I TO THE PRESENT

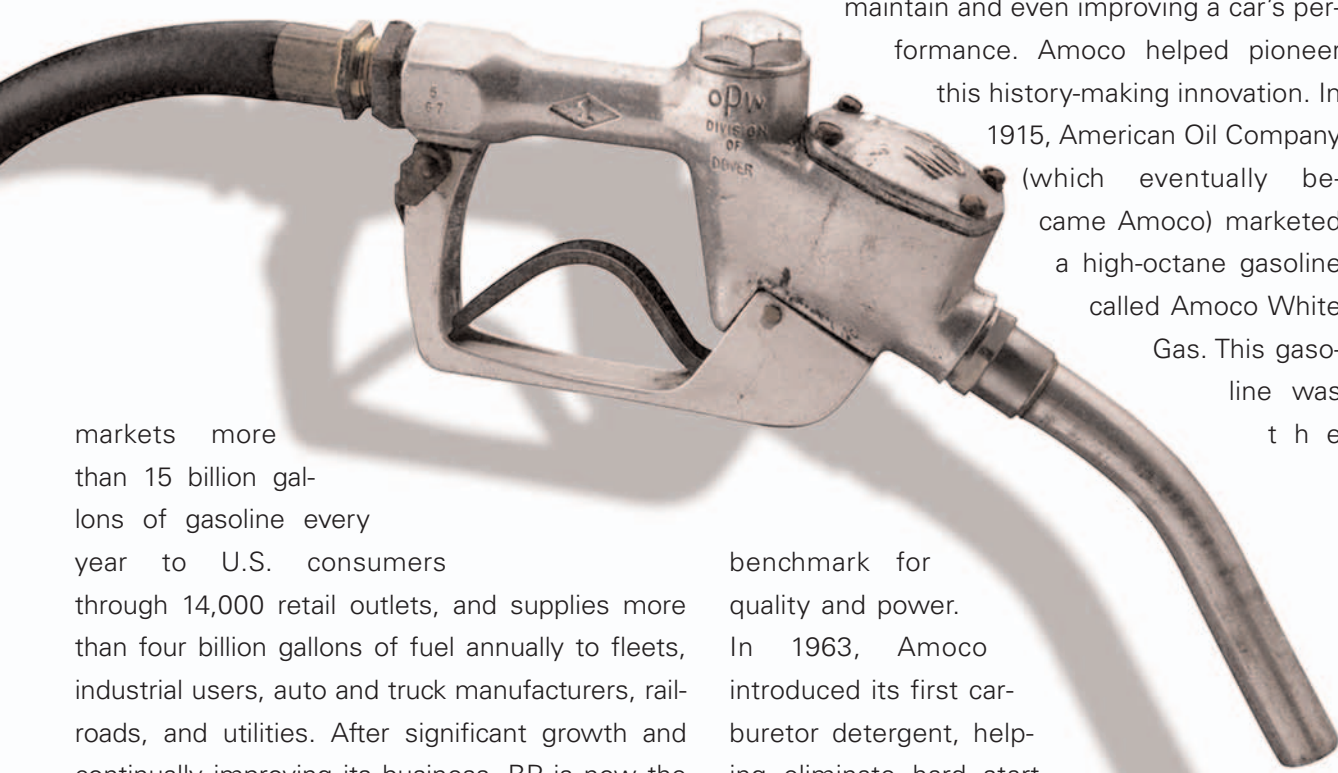
Subsequent to these first successes, the companies continued to expand their operations, and innovations in distributing petroleum products. Just after World War I, curbside pumps soon replaced two-gallon tins for the distribution of gasoline (or, as it was known then, 'motor spirit'). At the same time, the search for oil continued. Exploration was carried out in many areas, including Canada, South America, Africa, New Guinea, the Middle East, Europe, and primarily the United States. In fact, in 1969, after 10 years of arduous explorations efforts in Alaska, BP announced a major oil discovery at Prudhoe Bay on the North Slope. When it became clear that, through its large share in Prudhoe Bay, BP owned part of the biggest oilfield in the United States, the company

decided that its Alaskan oil could best be handled by a well-established U.S. refining and marketing company.

Accordingly, it signed an agreement with the Standard Oil Company of Ohio in August 1969. This company, the original John D. Rockefeller Standard Oil, was the market leader in Ohio and was strongly represented in neighboring states. With that, BP emerged on the North American market. Now, nearly four decades later, BP

has been a market leader since day one, and the combination of the two has increased this commitment. Over the years, Amoco fuels have grown from simply powering vehicles to actually providing benefits to a car's engine. In fact, Amoco's own history tells much of the story of how fuel got to where it is today.

As early as 1915, gasoline became more than just fuel – rather than simply powering America's vehicles, innovations in fuel technology helped to maintain and even improve a car's performance. Amoco helped pioneer this history-making innovation. In 1915, American Oil Company (which eventually became Amoco) marketed a high-octane gasoline called Amoco White Gas. This gasoline was the



markets more than 15 billion gallons of gasoline every year to U.S. consumers through 14,000 retail outlets, and supplies more than four billion gallons of fuel annually to fleets, industrial users, auto and truck manufacturers, railroads, and utilities. After significant growth and continually improving its business, BP is now the single, global brand formed by the combination of the former British Petroleum, Amoco Corporation, Atlantic Richfield (ARCO), Burmah Castrol, and Aral. From this rich history, BP has emerged as a leader in providing quality, premium fuels that improve vehicle performance, benefit the car's engine, and are mindful of the environment.

THE NEW FUELS

The companies that now support BP have always aspired to provide cutting-edge fuels, but with BP's merger with Amoco in 1998, they created an even more powerful partnership. Both BP and Amoco have been committed to quality and inno-

vation since day one, and the combination of the two has increased this commitment. Over the years, Amoco fuels have grown from simply powering vehicles to actually providing benefits to a car's engine. In fact, Amoco's own history tells much of the story of how fuel got to where it is today. As early as 1915, gasoline became more than just fuel – rather than simply powering America's vehicles, innovations in fuel technology helped to maintain and even improve a car's performance. Amoco helped pioneer this history-making innovation. In 1915, American Oil Company (which eventually became Amoco) marketed a high-octane gasoline called Amoco White Gas. This gasoline was the benchmark for quality and power. In 1963, Amoco introduced its first carburetor detergent, helping eliminate hard starting, rough idle, and poor acceleration. In 1970, Amoco introduced the first lead-free gasoline and in 1977 Amoco was the first to market a lead-free premium gasoline. By 1987, all Amoco fuels were lead-free.

In 1985, Amoco was among the first fuel producers to develop a detergent additive for fuel-injected cars. Only a short time later, Amoco's detergent additive was proven to help keep both the fuel injectors and intake valves clean. In 1985, BP Super 93 was the first gasoline to pass the test that would become the industry standard for

intake valve cleanliness. By 1992, some gasoline detergent additives were doing more harm than good – they were actually contributing to combustion chamber deposits. But with advances in fuel technology, Amoco and BP gasolines were preventing these deposits. Also in the summer of 1992, Amoco officially launched Amoco Ultimate Crystal Clear Premium gasoline in markets east of the Rockies.

Today, BP remains committed to providing consumers with high-quality fuels. For 16 consecutive years, BP's full slate of Amoco-branded gasolines has been rated highest in quality in a national consumer survey. Available at stations east of the Rockies, Amoco gasolines include Amoco Regular, Amoco Silver®, and Amoco Ultimate® fuels. The quality of these fuels is backed by a written guarantee and BP spends millions of dollars each year testing samples to measure and monitor product quality.

These products are of such high quality, in fact, that BP is a preferred factory fill supplier to most of the major original engine manufacturers (OEMs) in the US, and 9 out of 10 cars leave U.S. assembly plants with Amoco fuels.

THE ULTIMATE FUEL

All Amoco fuels from BP are quality fuels and offer drivers choices that suit their vehicles best. While some cars may not require the high octane of premium fuels, all cars can benefit from Amoco Ultimate fuel. As BP's highest octane fuel, Amoco Ultimate contains an enhanced engine cleaning formula that with continuous use can help old cars perform better and can keep new cars running their best: New cars benefit by keeping engines clean and free from deposits, while cleanliness is restored to dirty valves in older engines. A cleaner engine can result in cleaner starts, smoother acceleration, less hesitation, and improved fuel economy.



1859

oil successfully drilled
in Titusville, PA

1889

Amoco formed as
Standard Oil of Indiana.

1909

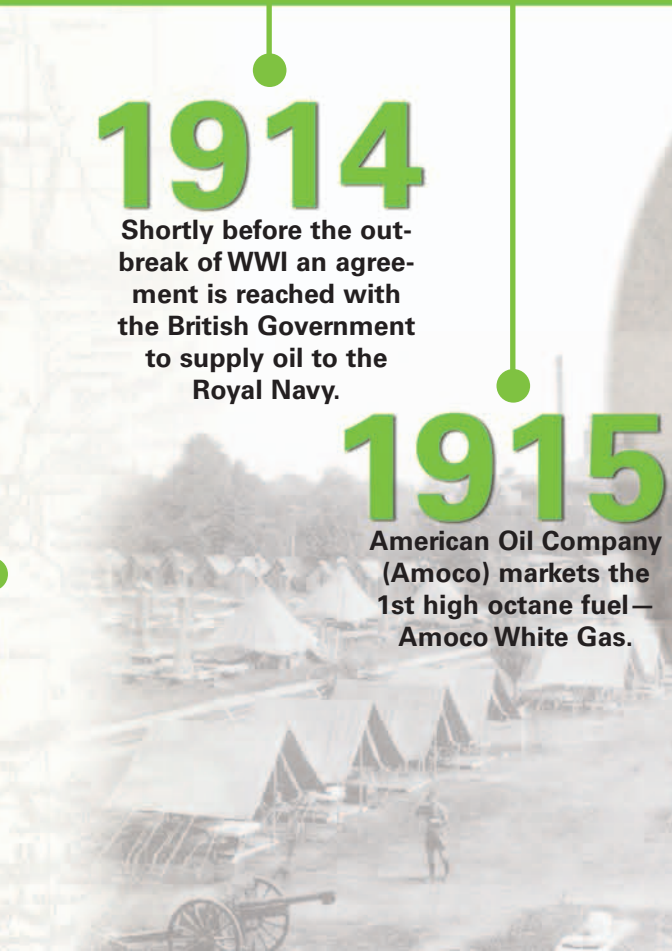
Anglo-Persian Oil
Company formed.

1914

Shortly before the outbreak of WWI an agreement is reached with the British Government to supply oil to the Royal Navy.

1915

American Oil Company (Amoco) markets the 1st high octane fuel – Amoco White Gas.





People take their cars seriously, and they should, seeing as how cars are considerable investments. When people buy a car, they expect the best performance, and expect to maintain that performance, too. Amoco Ultimate helps make that a possibility by providing more cleaning power through an enhanced cleaning additive than the minimum that is required by law. As a result, this fuel keeps engines clean and cleans up the entire fuel intake system, including fuel injectors, intake valves and even carburetors in older cars.

That's not all. Using Ultimate means more performance, less pollution. Continuous use of Amoco Ultimate can help to reduce engine valve deposits. Intake valve deposit clean up can reduce harmful emissions of ground-level, ozone-forming pollutants that cause smog. By reducing these emissions, Ultimate is helping to reduce air pollution.

In addition to environmental benefits, research shows that cars with fewer deposits run better. Enhanced cleaning power does just that reduces the risk of harmful deposits. Using Amoco Ultimate, which includes state-of-the-art detergent additives, can clean dirty intake valves and restore engine performance, resulting in smooth drivability, including good cold-start and warm-up performance and smooth acceleration, and in improved fuel economy. Fleet tests show that a 50 percent removal of valve deposits can translate to 30 percent improvement in drivability, at least 10% fewer emissions, and up to a three percent increase in fuel economy



1927

Unleaded Amoco gas fuels Charles Lindbergh's "Spirit of St. Louis" on his historic transatlantic flight.



1918

Curbside pumps introduced.



engine cleaning formulation that far exceeds government standards. With Crystal Clear's enhanced engine cleaning, vehicles can receive all the benefits of Amoco Ultimate faster. After just one tank full of Amoco Ultimate crystal clear, cars can begin to see the benefits from reduced engine deposits leading to better performance and less emissions of ozone-forming pollutants.

In addition, the drivability specifications for Crystal Clear Ultimate are more stringent than the industry standard, which means better cold start and warm up performance, and smoother acceleration with less hesitation every time.

With its 93 octane level, Crystal Clear can provide benefits for all vehicles, including those designed for regular unleaded gasoline. Higher-mileage vehicles that experience knocking and pinging may benefit from high-octane fuel, as can new vehicles.

Amoco Ultimate Crystal Clear is only available in select markets. But, it has and continues to help reduce air pollution. And, as more cars benefit from this innovative fuel, the cleaner our air will be.

THE FUTURE OF FUEL

As the story of fuel continues to make its mark on history, Amoco Ultimate continues to contribute to the fuel innovations. Amoco leaves a legacy of providing quality premium fuels like Amoco Ultimate and Amoco Ultimate Crystal Clear premium, which benefit vehicle engines, vehicle performance, and the environment. As these fuels offer more performance and less pollution, all cars benefit from Amoco and BP's commitment to quality.

Fuel has evolved from merely powering cars to helping them perform better. With such advances in fuel technology over the last century, the next century holds more to see, and BP/Amoco is sure to be at the forefront of these innovations. ■

77
Bay comes with the completion of the 800 mile Pipeline.

1977

1985
BP Super 93 1st gasoline to pass the industry standard test for intake valve cleanliness.

1992
Amoco launches Ultimate Crystal Clear Premium Fuel.

1998
BP merges with Amoco.

1999
Amoco Ultimate refined to be low in sulfur. Years ahead of EPA Regulations.



BP Business Solutions MasterCard® Card

Fleet Fueling Innovation

2006

New!

With the new BP Business Solutions MasterCard Card, you, the Fleet Manager, have complete control over every driver, card and transaction. Plus, with high quality† Amoco® Fuels fueling your fleet, you'll get peak performance from your vehicles.

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- **Flexibility** to set spending limits
- **Expanded Control** online, in real-time
- **Competitive Rebates***
- **High-Quality Fuels**



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Card may be used at participating ARCO locations.

* Rebates may not be allowed where prohibited by law and apply only to fuel purchases made at participating BP branded locations in the U.S. Rebates automatically applied to your monthly statements and subject to change at any time without notice. Rebates are not offered on purchases at ARCO locations.

† Rated #1 in quality in America by a national survey of drivers.