

THE DAY OIL WENT NEGATIVE!

*... on April 21, 2020, the price of oil dropped to **-\$35/bbl.***

A focus on Eliminating Oilfield Tank Fires

*Innovation has been slow in the oil and gas industry. A key reason is the paradigm "Because we've always done it that way."
Together, we can change that!*

A Technical Paper

Prepared for

Facility Engineers and Designers

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EXECUTIVE SUMMARY

Crude oil has changed the world in every respect. It has made it possible for us to go to the moon, fly anywhere anytime, drive to work, and live in lighted and air-conditioned homes. The value crude oil has brought to modern society is immeasurable.

Yet, on April 21, 2020 Bloomberg posted the price of WTI crude oil at minus \$35/barrel. This was the first time that the price of crude oil had ever been negative.



Prior to that day no one could have imagined any condition where the value of crude oil would sink to zero or below.

It was unpredictable.

It seemed impossible. But it happened!

THE CAUSE – A GLOBAL PANDEMIC

The root cause of this “industry first” was a global pandemic.

This pandemic, known as the Corona Virus, or COVID-19, triggered a near-complete shutdown of all global economies. Most travel ceased. Airlines shut down. Cruise ships sat empty at anchor. Business closed offices and forced employees to work from home. Isolationism became the order of the day.

The isolation policies necessary to minimize the spread of the Corona virus also reduced travel by car, truck, train, and air to near zero. These reductions brought energy consumption to a near standstill.

Oil production continued until all global storage facilities were full. Refinery tanks filled. Supertankers, full of millions of barrels of crude oil, sat idle at anchor all over the world.



With no place left to store crude oil, the value of crude oil fell fast and it fell dramatically! Its price declined until on April 21, 2020, it went negative. The price of oil sank to a negative price of -\$35/barrel.

No one saw this coming. No one could have imagined that a virus could wreak such havoc on a global industry, bringing it to its knees.

But the fact is that pandemics have occurred since ancient times, and each one has brought economic ruin, famine, and death.

PANDEMIC HISTORY

- In Athens, Greece in 430 B.C. the earliest recorded pandemic happened during the Peloponnesian War. After the disease passed through Libya, Ethiopia, and Egypt, it crossed the Athenian walls as

the Spartans laid siege. The disease was suspected to have been typhoid fever. Two-thirds of the population died.

- In 165 A.D., the Antonine plague was an early appearance of smallpox. The Huns infected the Germans, who passed it to the Romans and then returning troops spread it throughout the Roman Empire. This plague continued for fifteen years until about 180 A.D., claiming Emperor Marcus Aurelius as one of its victims.
- In 250 A.D. the Cyprian Plague, which began in Ethiopia, struck in Carthage. It was named after its first known victim, the Christian bishop of Carthage. This plague spread throughout Northern Africa, into Rome, onto Egypt and finally northward. There were recurring outbreaks over the next three centuries. In 444 A.D., it broke out in England where it notably obstructed defense efforts against the Picts and the Scots, causing the English ask for help from the Saxons, who eventually gained control of the island.
- Others raged through the centuries until 1350 A.D. when the Black Plague broke out in Asia. Responsible for the death of one-third of the world population, this outbreak of the bubonic plague moved west in caravans. Entering through Sicily in 1347 A.D. when plague sufferers arrived in the port of Messina, it spread rapidly throughout Europe. England and France were so incapacitated by the plague that the countries called a truce to their ongoing war. The British feudal system collapsed as the plague changed all economic circumstances and demographics. It ravaged Greenland. The Vikings lost the ability to wage war against indigenous populations or to explore North America.
- In the spring of 1918, the avian-borne flu known as the Spanish Flu resulted in fifty million deaths worldwide. It was first observed in Madrid, and rapidly spread to the United States and Asia before swiftly spreading all around the world. At the time, there were no effective drugs or vaccines to treat this killer flu strain. By October, it had spread to America. Hundreds of thousands of Americans died. By the time it abated in 1920, the Spanish flu had killed 675,000 Americans and left

hundreds of thousands of children orphaned. Not only did more Americans die of the Spanish flu than in World War I, more died than in all the wars of the 20th century combined. Globally, that pandemic infected a third of the planet's population and killed an estimated fifty million people.

- By the end of 2021 COVID 19 had killed over 3.4 million people worldwide. It nearly killed the oil and gas business too.

Today the oil and gas industry is once again healthy. Yet, it remains vulnerable to boom-and-bust cycles, climate change and other global issues, not the least of which is the next pandemic.

In the meantime, KBK thanks all of you for helping KBK survive the COVID 19 pandemic.

ABOUT THE AUTHORS

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