



KANSAS LEGEND BIOGRAPHY

H.P. Cady & David F. McFarland – Helium

David Ford McFarland was born in Ohio in 1878. As a boy, McFarland moved with his family to Lawrence, Kan., and attended public schools there. He went on to attend the University of Kansas, and in 1900, received his A.B. degree in chemistry. McFarland soon joined the chemistry department at the university and earned a masters degree the following year.



In 1903, a newly drilled well in Dexter, Kan., was spewing natural gas, with more than 9 million cubic feet of the unnamed gas having escaped before the well was capped. As a crowd gathered around to celebrate the town's new means of economic prosperity, disappointment quickly spread when the mayor attempted to light the gas only to find it wouldn't burn.

Erasmus Haworth, a geology professor from KU, decided to study the specimen further and filled a large steel cylinder with the mysterious substance before returning to the university. McFarland and chemistry professor H.P. Cady began analyzing the gas. On Dec. 7, 1905, they used a spectroscope to view colors of light from the gas and realized the yellow light produced was the signature color of helium gas. The total amount of helium present in the Dexter gas geyser sample was 1.74 percent.



In January 1906, the findings were presented before the American Chemical Society at a national meeting in New Orleans. Cady and McFarland perfected a technique for determining the amount of the helium in natural gas, as well as a method for separating helium from the other gases. The pair went on to study other gas geysers throughout the Midwest. A complete work of their findings was published in 1907.

The discovery of helium has affected everything from balloons to the atomic bomb. We now know it to be the second most abundant element in the universe. However, the discovery was much less notable at the time it happened. The Kansas City Star reported that helium was thought to have "no practical value beyond its scientific interest" in 1906. The Dexter sample sat on a shelf at KU for 10 years before anything further was done with it.

The United States government asked Cady to research practical uses for the gas. As uses for the gas were discovered, the Great Plains became the leading helium producer in the world. The National Helium Plant was built in 1963 near Liberal, Kan., and is still in use today.

