



The Geologist and The Engineer, More in Need of Each Other Than Ever

William Marble

Hallwood Petroleum, LLC, Dallas, Texas

Bmarble@hallwoodenergy.com

Historically, earth scientists ponder maps, logs and other data in search of prospective hydrocarbon traps. A carefully placed dot on a map would be provided to the engineering group. The well was designed, drilled completed into the targeted formation. The groups would exchange information to insure the target was hit in an optimal position. Once drilled, log readings were made to estimate potential reserves, and to verify additional drilling opportunities. Although oversimplified, this was often the limit of communication between the rock focused earth scientist and the math focused engineer.

But no more. Not in the age of unconventional gas exploitation. While the basic needs for geologic analysis remain unchanged there is a significant increase in the need for communication and coordination between these two disciplines.

No longer relegated to placing a dot on a map and waiting to see if the engineer finds the target trapped, sourced and sealed as envisioned. Now the geologist's work continues, and in more detail than before. Rock mechanics, mineralogy, clay content, secondary mineralization, Young's Modulus and Poisson's Ratio have become every day terminology that all disciplines must work to understand and plan wells and completions.

Communication between these groups is essential to promote innovation and optimization in these technologically challenging unconventional plays. And both are necessary for success.