Well Construction and Wellbore Integrity Evaluation

One of the most important potential leakage pathways for CO2 to move between formations is through wellbores. In order to minimize and understand the risk of leakage, the sealing characteristics and integrity of the well must be well characterized. Proper external characterization must take into account the radial nature of the cement that seals the annular space between the casing and the formation. Over the last few decades three have been several tools, both sonic and ultrasonic, that have been used to monitor cement integrity, and many of those tools were recently used to assess the condition of existing wells as part of a study at the Rocky Mountain Oilfield Testing Center. This presentation will discuss the logs that were run on the well and how the results of the logging are interpreted to gain an understanding of the well's external integrity.