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**USING A DOWNHOLE CAMERA  
TO MONITOR THE NITROGEN INTERFACE DURING AN MIT –  
EXPERIENCE AT GAINES COUNTY, TEXAS**

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**ABSTRACT**

ConocoPhillips operates a two-well NGL storage cavern in a West Texas bedded salt formation located in Gaines County, Texas. The cavern well does not have a brine string and is used for product injection and withdrawal. A separate, offset well used for brine displacement is connected to the bottom of the cavern cavity. When a very short borehole immediately below the casing shoe (~3 feet long) prevented the running of an interface logging tool during an integrity test, a downhole camera was used instead. This paper describes the unique application of Halliburton Company's downhole camera during the integrity testing of the cavern well. It describes the circumstances leading to the decision to use a camera and the procedures required to insure accurate interface measurement. A key part of this presentation is video excerpts from the integrity test showing two interfaces during nitrogen injection (brine/NGL and NGL/nitrogen) as well as "logging" across the interface at the start and finish of the test.

Key words: Bedded Salt Deposits, Camera, Cavern Testing, Geology, Interface, MIT