

Corroded Ring Gasket Causes Loss of Well Control

Recently, contract personnel were performing routine scaling operations in an attempt to repair a leaking Surface Controlled Subsurface Safety Valve (SCSSV). After several unsuccessful attempts to remove the scale with a wireline unit, the operator decided to perform an acid job to reduce the amount of scale around the SCSSV. The following day, after the acid job, the operator reentered the well to perform more scraping. A seal ring on the bottom flange below the master valve began to leak and dry gas was released into the atmosphere. Since the SCSSV was not operable and the leak was below the master valve, the operator was not able to prevent the escape of natural gas. The platform was evacuated shortly after the loss of well control without injury.

A Minerals Management Service (MMS) investigation concluded that the causes of the incident were a severely corroded ring gasket, the performance of an acid job which possibly accelerated the failure of the ring gasket, and a leaking SCSSV.

Therefore, the MMS recommends the following:

- Lessees and designated operators should review their policies regarding the performing of acid operations within a well especially if an SCSSV is not functioning properly.
- Lessees and designated operators should review their platform specific emergency plans to reduce further injuries or accidents when an incident occurs.
- Lessees and designated operators should be able to trace the history of ring gaskets in the field regardless of previous ownership, and/or determine the condition of said ring gaskets prior to the performance of future operations.