

**SAFETY ALERT - #24 - 2009**  
**Hydraulic Annular Control Valve Failure**  
**RELEASE DATE: NOVEMBER 30, 2009**

<b>Function:</b> Production Operations	<b>Incident Date:</b> October 2, 2008
<b>Incident Type:</b> Equipment Failure	<b>Country and Region:</b> Western Canada

**Summary:**

During the removal of a coil tubing string, blast joint and centralizer, a completions work over crew lost well control resulting in a blowout.

**Description of Incident:**

A hydraulic annular control valve, similar to the one shown below, was being used as the primary well control device immediately above the wellhead. A combination of overpressure on the hydraulic annular control valve and mechanically induced movement of the coil tubing siphon string resulted in a failure of the annular bag. Tools across the master valve prohibited its use as a well control device in this circumstance.

Other important well information:

- This was a multi-zone gas well with a packer between the completion intervals (Class II).
- A one inch steel coil tubing single string was installed into the well bore secured by an annular control valve, tubing hanger and access cap.
- The coil tubing string had a fluted centralizer and blast joint(s) to facilitate the safe production of the well.

**Recommendations for Preventing Future Incidents:**

The company reporting this incident identified important prevention recommendations for completions workovers on multi-zone completions:

- Hydraulic annular control valve assemblies are not recommended as the primary well control Blowout Preventer.
- The hydraulic annular control valve is not designed for continuous use for tubular isolation. There must be a secondary well control device in place.
- Well control devices should be positioned as close to the wellhead as physically possible.
- Well control set up and installations should be aligned with current industry recommended practices and identified in the following:
  - ERCB Directive 37 [Directive 37](#)
  - Well Service BOP Manual Chapter 4
  - IRP 21 pending issuance in 2009 [IRP 21 Coiled Tubing](#)



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**DISCLAIMER:**

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