Induced Hydraulic Fracture Results in Blowout
Non-injury incident

SAFETY ALERT

Description of Incident:
An induced hydraulic failure resulted in a well blow out and release of a mixture of Nitrogen and oil.

What Caused It:
- A fracture operation on an offsetting well came into a pumping wellbore and allowed hydraulic fluids to overpressure the equipment on the existing pumping well resulting in a failure of the pumping equipment.
- The induced hydraulic fracture grew 110 m into the effected wellbore at the time of the incident.
- The stuffing box was destroyed and a polish rod was broken on the pump jack.

Corrective Actions:
- A stabbing valve was installed to stop the blow out and the well was secured.

Preventive Actions:
Investigations produced the following preventive recommendations:
- Conduct a full pre-fracture risk assessment to determine a safety radius around the location of the induced hydraulic fracture.
- Any producing well bore, from the same zone, within the safety radius of a planned hydraulic fracture operation should be shut in, and safely isolated to contain any anticipated pressure released from the hydraulic fracture operation.
- Monitor pressures to confirm that there is no inter-zonal connection occurring.

Other preventive actions may include
- If the offsetting well has a surface pumping apparatus, remove the stuffing box and install a master valve. This may further enhance well control, by allowing the operator to monitor the surface pressures during the offsetting fracturing operations.