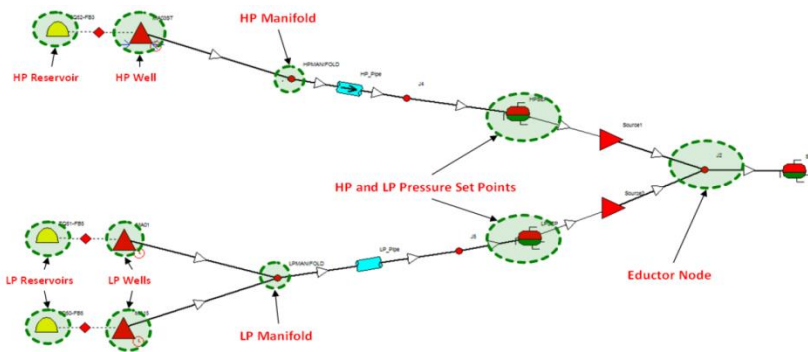


SPE 158647 Predicting the Performance of Gas Boosting Eductors

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Eductors, also known as Jet Pumps or Ejectors, are to be applied at field level to boost low pressure flows. To capture the behaviour of the educator beforehand, a model was built from first principles in a spreadsheet and integrated into an IPM model:



A step by step description of how the model was determined is provided in this paper as well as how the models were validated. The validation procedure consisted of two approaches:

- Vendor Design Information
- Sample Calculations and Generic Eductor Curves

Both of these methods showed good agreement with the calculated model results creating greater confidence in the full IPM model results.

CONCLUSION:

Confirmation was achieved which showed that the software tool can be created to reliably model a production system behaviour when connected to an educator.

OBSERVATIONS:

1. Choking back the HP stream to preserve energy was not found to be necessary.
2. Running sensitivity studies of the nozzle throat areas as well as the well and educator activation schedules can optimise the LP ultimate recovery.