A study into plunger-lift characteristics to dewater the tight-gas wells was carried out to be able to understand the optimal operating conditions for reasonably controlling deliquification without a severe liquid surge while also maintaining a maximum gas production. Plunger lift is a form of intermittent artificial lift which uses a metal plunger to supply a solid interface between the gas and lifted liquid load.

MBAL was used to capture the transient tight gas behaviour and linked to the network model in GAP:

**CONCLUSIONS:**

- The study showed that liquid loading becomes severe and production becomes unstable with higher WGR.
- Plunger lift helps to mitigate the instability problem due to low pressure and liquid loading.
- It was determined that simultaneous plunger lift from shut-in conditions for multiple well-pads should be avoided as the resulting simultaneous start-up with plunger lift from shut-in conditions would flood the separator.