

24 August 2021

## **A GAS RESERVOIR IN TRANSITION**

- Gas reservoir clearly in transition based on intermittent gas surges.
- ❖ Fluctuating and variable gas rates characteristic of transitioning reservoir, with gas rates from desorption alone having increased over 100% since pre-pump enhancement programme.
- Critical desorption in central pilot area confirmed by doubling of gas rate at central lateral well G14L and increasing gas/water ratio in other lateral wells.
- At current interpreted rate of pressure depletion, the outer lateral wells are expected to reach critical desorption around the end of September, and lead to significantly increased desorbed gas rates.
- Pilot water handling capacity upgraded with commissioning of mobile irrigation system to supplement existing successful pivot irrigation installations.

Further to the operational updates released to the ASX 20th and 29th July, Galilee Energy Limited (ASX:GLL) ("Galilee") is pleased to provide an update on the 100% owned and operated Glenaras multi-well pilot programme ("Pilot") in the Galilee Basin ATP 2019.

Following the successful completion of the pump enhancement programme, all eleven wells have been brought online with flowing bottom hole pressures optimized to reflect the transitional nature of the reservoir behaviour. A small reduction in pump efficiency was observed in some wells, which after thorough investigation has been attributed to gas ingress through the pumps, in several instances resulting in a pump tripping on account of gas lock.

These gas-related effects, together with a gradual decline in water production rates corresponding to lowered average flowing bottom hole pressures, are highly encouraging manifestations of pressure depletion in the reservoir, and characteristic of a reservoir in transition.

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While these effects temporarily limit the growth in total gas rates (due to the lessening component of gas carried with recovered water), the rate of gas desorbing from the coals (which flows up the annulus of the wells and is measured separately) has continued to increase on a weekly basis. The desorbing gas rate has increased by over 100% since all wells were brought online with optimized flowing bottom hole pressure.

As foreshadowed in the previous reports, the achievement of critical desorption pressure in the central pilot area has, pleasingly, been confirmed by a consequential doubling of desorbed gas from the central lateral well (G14L). Moreover, the gas/water ratio in the other lateral wells is continuing to increase, which is again indicative of an increasing contribution of gas desorbing from the coals.

Based on observed rates of pressure depletion in nearby observational wells, the outer lateral wells are expected to reach critical desorption around the end of September, and to significantly expand the "pressure sink" area contributing to the production of desorbed gas, leading to a substantial increase in total gas rate.

Plans are well advanced for a measured expansion of the Pilot footprint following confirmation of the anticipated short-term performance.

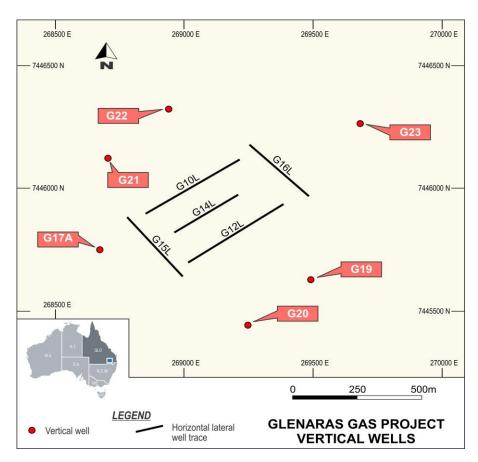


Figure 1 – Pilot well locations

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### Water handling projects

Efficient (and potentially value-adding) water handling remains critical to the operation of the Pilot. Since the last report, a mobile irrigation scheme has been successfully commissioned to supplement the two existing pivot irrigation areas. These three irrigation areas, together with the on-site reverse osmosis plant, are well positioned to handle the current water production of ~18,000 barrels per day (and more).

Cropping operations are on schedule, with a third cut of sorghum on pivot 1, and a first cut of oats on pivot 2 due in the coming weeks.

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### **About Galilee**

Galilee Energy is focused on creating a high value exploration and production company building on its core strengths in coal seam gas appraisal and development. Its primary area of focus is Queensland where it is appraising the Galilee Basin and exploring in the Surat and Bowen Basins whilst looking to add further high quality acreage to its portfolio.

This announcement was released with the authority of the Board.

### **Directors**

Chairman - Ray Shorrocks

Managing Director - Dr David King

Non-Executive Director – Stephen Kelemen

Non-Executive Director - Gordon Grieve

Non-Executive Director – Greg Columbus