

Glenaras Gas Project Update

17 June 2020

Highlights

- ❖ The recently drilled Glenaras 17A monitoring well has provided a significant breakthrough in understanding the production characteristics within the Betts Creek coal sequence.
- ❖ Glenaras 17A has confirmed that the entire section from the R1 to the R7 coal is acting as one contiguous system and is being depleted by the existing multi-lateral pilot (Pilot). Importantly, it has also confirmed that the Betts Creek coal sequence is isolated from other significant aquifer systems, particularly the overlying Hutton sandstone and Great Artesian Basin.
- ❖ The Pilot continues to produce strongly and has achieved a significant pressure sink in the Pilot area, which is approximately 85% progressed towards the Company's goal of critical desorption.
- ❖ Given the Pilot is depleting the entire coal section, clear potential exists to realise a much larger initial 2P Reserves target in the order of 800 - 1,000 PJ.
- ❖ The remediation of the old legacy pilot wells at Glenaras and Rodney Creek has been completed. The Pilot performance is being carefully monitored to observe any impacts from this programme.
- ❖ Schlumberger has been commissioned to undertake reservoir simulation modelling to analyse the current production and pressure performance of the Pilot and to optimise future development options.
- ❖ In parallel, the Company is rapidly progressing with drilling rig contractors and long-lead procurement for an imminent drilling campaign within the Pilot area, all of which is expected to be well within the Company's existing cash reserves.
- ❖ Discussions have commenced with the Queensland Government for the conversion of ATP 2019 to a Potential Commercial Area (PCA), representing a key step in elevating the permit towards a Petroleum Lease.

Glenaras Gas Project (ATP 2019) – GLL 100%

Galilee Energy Limited (ASX:GLL) (“Galilee”) is pleased to provide an update on the Glenaras multi-lateral pilot programme (“Pilot”) in the Galilee Basin in Queensland (Figure 1).

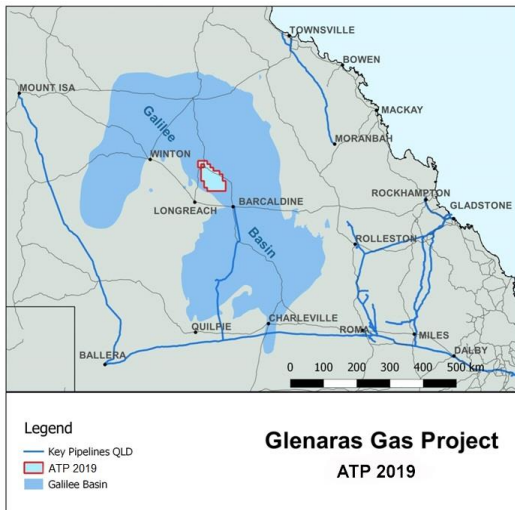


Figure 1 – Glenaras Gas Project

Outcomes from Glenaras 17A

The Glenaras 17A monitoring well (Figure 2) has provided significant new positive information on the reservoir characteristics and vertical connectivity within the Betts Creek coal sequence. Critically, despite the variable reservoir quality of the coals, sands and siltstones within the Betts Creek section, preliminary analysis of the data from Glenaras 17A indicates that the entire Betts Creek i.e. the R1 to R7 coal sequence (and interspersed sandstones) is being depleted almost uniformly by the Pilot. As such, the Pilot, which is completed and producing from the R3 coal only, is successfully draining from the entire Betts Creek sequence, most materially in the host coal, but also demonstrably in each of the other seams tested. Importantly, data obtained from Glenaras 17A indicates that the Betts Creek coal sequence is isolated from other significant aquifer systems, particularly the overlying Hutton sandstone and Great Artesian Basin.

The monitoring well results have some very important and positive implications. Firstly, this vertical connectivity helps to explain the continued strong water production rates and pressure support observed in the R3 coal at the Pilot. The vertical connectivity is allowing other layers within the section (from the R1 through to the R7) to contribute and provide crossflow support (Figure 3). This is the key reason why the Pilot is taking longer to achieve critical desorption in the timeframe expected by the Company. It also helps explain the performance of some of the legacy well pilots nearby. However, notwithstanding this very large crossflow, the existing lateral wells have achieved extraordinary success in significantly reducing the reservoir pressure in the full section of the Pilot area by a material amount in a relatively short period of time. The Pilot continues to perform strongly with water rates at approximately 6,000 BWPD and gas rates have quickly recovered after the recent pressure survey work. From an original reservoir pressure of ~1,450 psi, the Pilot has created a large pressure sink in the area which is, at its centre, approximately 700 psi and only ~100 psi above critical desorption pressure.

Secondly, the identification of this strong vertical connectivity within the full Betts Creek section, which appears to be widespread, has important benefits for future drilling and field development planning. As previously advised by the Company, the current Pilot was an initial step to accelerate first Reserves booking and any future pilots and future field development would most likely utilise vertical wells. The fact that there is such strong natural vertical connection within the sequence now, provides strong support that any future drilling, including any additional drilling within the Pilot area to accelerate results, will most likely be conducted using vertical wells completed over the entire Betts Creek section. This both simplifies and reduces the capital costs of any future drilling activities. It is more efficient to drain all layers of the Betts Creek section via vertical wells than to use more complex lateral wells draining from a single layer. That being said, the Pilot has been very effective, and this is due to the sheer volume of water extracted by virtue of the productivity of lateral wells, which has been instrumental in achieving the significant drawdown we have observed in the Pilot area to date.

Finally, and most importantly, the Glenaras 17A well has clearly demonstrated drawdown and depletion of the full section of coal within the Betts Creek and not just within the R3 seam. Therefore, a successful pilot at this location will be targeting a much larger Reserves booking given that all coal seams are being targeted. While it is expected that additional vertical well drilling will likely be required to achieve success, there is now the clear potential to access additional gas Reserves, increasing the near-term target 2P Reserve booking closer to 800 - 1,000 PJ.

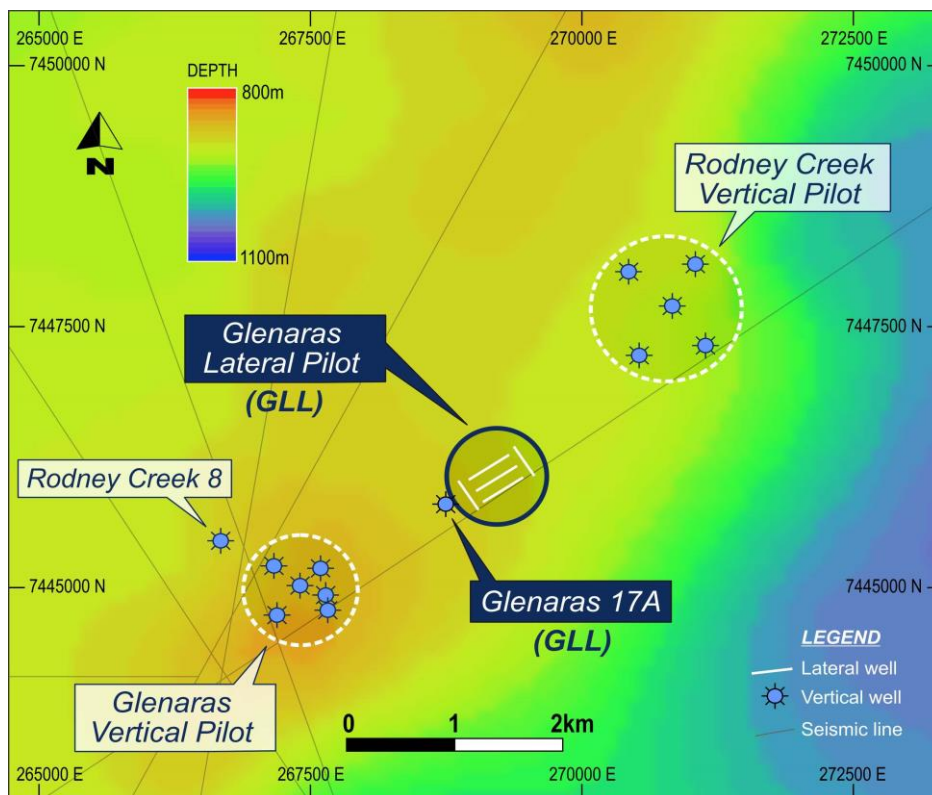


Figure 2 – Glenaras Location Map

1

LATERAL PILOT WELLS

- Producing only from R3
- Draining all layers of Betts Creek coals

2

OVERLAY OF VERTICAL PILOT WELLS

- Reduce cross flow pressure and water contribution from other layers

3

FINAL WELL FIELD PRODUCTION

- Lateral & vertical wells producing from all layers in Betts Creek section
- Enhanced performance and drawdown of original targeted coal

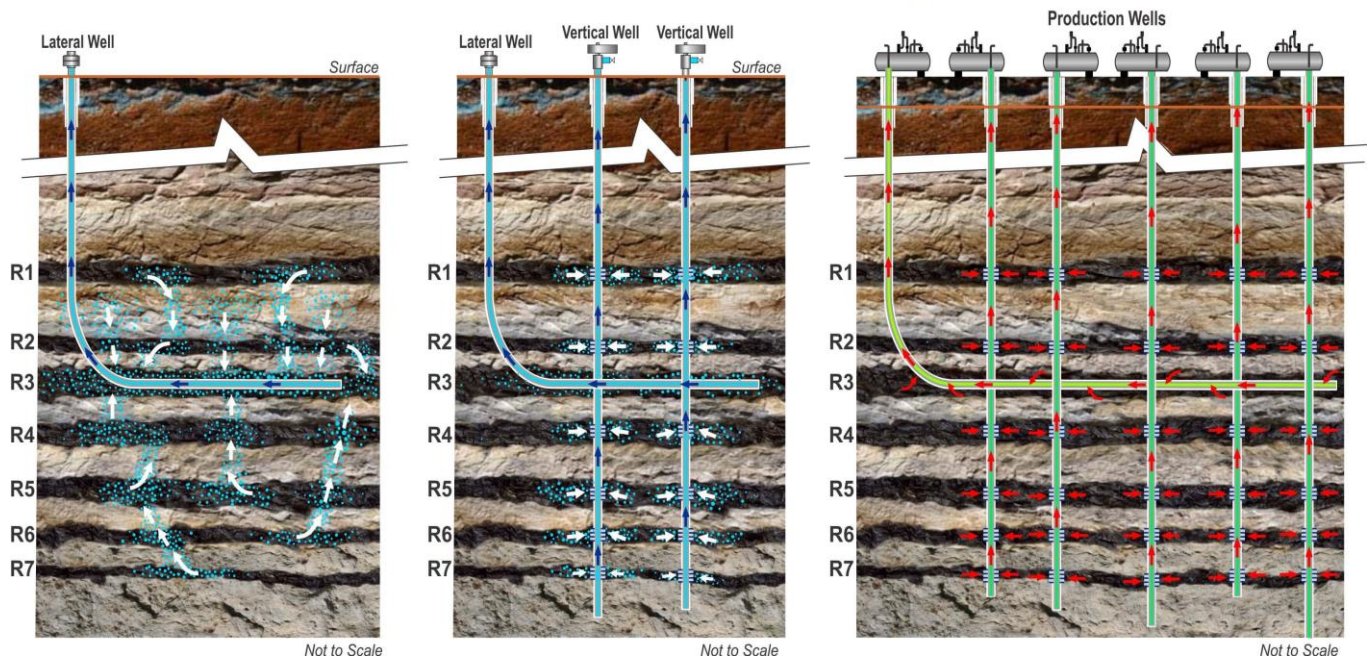


Figure 3 – Glenaras Pilot Subsurface Schematic

Schlumberger Reservoir Simulation Modelling

To assist with the evaluation of the recently acquired results, and the forward plans with the Pilot, Schlumberger has been engaged to perform a reservoir simulation study. The work will consist of reservoir modelling to history match the legacy vertical pilots in the area (Figure 2) along with data acquired from the more recent Pilot.

This modelling will analyse the optimum future drilling and completion design and the number of wells required to achieve a commercial outcome. The Company believes there is now sufficient production and pressure data to define the reservoir performance more accurately. Schlumberger is utilising multiple cloud-based computer systems that will dramatically reduce the time taken to complete the work. The results of this study will be used to develop the forward work programme by refining the drilling design and number of wells required to reach critical desorption. This work is expected to be completed in the next two to three weeks.

Next Steps

While any future work programme will need to be validated by the current reservoir modelling work underway, the Company is of the view that the way forward will likely involve supplementing the existing Pilot with a number of vertical wells in a configuration over and within the current Pilot to achieve four main goals:

- A vertical well completed over the entire Betts Creek section will drain the sequence more efficiently as opposed to the situation at present where we are currently draining all layers of the section by producing from only the single R3 coal seam.
- Exploit the significant existing pressure depletion created by the Pilot. The existing Pilot has already achieved major pressure depletion and is within 100 psi of critical desorption (i.e. 85% towards targeted level). Additional production from new wells will enhance this situation and importantly there will be no requirement to shut in the Pilot while conducting the drilling programme.
- Removing the crossflow pressure and water contribution from the other layers into the lateral R3 Pilot. This will accelerate the performance and drawdown of the original targeted R3 coal with the aim of providing a boost in gas production from the existing lateral wells in the Pilot area.
- Demonstrating the performance of a vertical well pilot to underpin the existing assumptions of vertical drilling as the most likely scenario for the full field development. This will be an important step for progressing to a much larger 2P Reserves booking.

To this end the Company has moved rapidly to initiate the drilling, completion and connection programme. The drilling rig and service company tender selection process is already complete, and we are progressing towards final contracts. A workover rig has already been sourced and stacked on site and surface facilities design work is also well underway.

This programme is forecast to be well within the existing cash reserves of the Company given its strong Balance Sheet and robust cash position (\$26.1 million at 31 March 2020) and every effort will be made to further optimise the programme and continue with our disciplined capital management.

Glenaras Water Management

A significant competitive advantage for the Project is the quality of the produced water from the Betts Creek section. The produced water quality is excellent with only 1,100 ppm of total dissolved solids. As such, very limited processing is required on this water for multiple potential agricultural applications. The Company has been very active in progressing the design, resultant scope of work and regulatory approvals for various water management options required to secure continuity of well water production for the Project.

In addition to enabling the Project to continue production unrestrained, the aim of the water management projects is to test all technologies to determine their design capacities and forecast unit cost of production under a full field commercial development scenario. Discussions are currently underway with landowners, government, and all other stakeholders to progress the first phase of this strategy using a produced water pivot irrigation system.

Glenaras Gas Project Resources Retention

To secure long-term retention and control of the significant Contingent Resources in ATP 2019, the Company has recently commenced discussions with the Queensland Government to progress the current exploration status of the permit to a Potential Commercial Area (PCA). Gaining this long-term security for ATP 2019 and the entirety of the Contingent Resource base, represents the next step in progressing the Project towards a Petroleum Lease for commercial production.

The Company will provide a further update to the market once the simulation studies by Schlumberger are completed in the coming weeks.

This announcement was released with the authority of the Board.

For further information contact:

Peter Lansom
Managing Director
Galilee Energy Limited
+61 (0) 7 3177 9970
ACN:064 957 419

* Listing Rule 5.42 +

The details of Contingent Resources referenced throughout this Quarterly Activities report in respect to ATP 2019 were announced to the market on 1 September 2015. In accordance with Listing Rule 5.34.3, Galilee Energy confirms that it is not aware of any new information or data that materially affects the information in those Market announcements first report the details of the Contingent Resources for ATP 2019 and that all of the material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

About Galilee

Galilee Energy is focused on creating a mid-tier 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.

Directors

Chairman – Ray Shorrocks

Managing Director – Peter Lansom

Non-Executive Director – Dr David King

Non-Executive Director – Stephen Kelemen

Non-Executive Director – Gordon Grieve