

Review of Sapphire Pilot test operations and results

Blue Energy Limited (ASX: “BLU”) advises that it has undertaken an independent review of the 2022 Sapphire 5/6 Pilot drilling and testing program (located in the Sapphire Block in ATP 814), with a view to formulating options to progress the full potential of the Pilot wells.

The Sapphire Pilot testing program remains operating, and the Pilot wells continue to flow gas. The current rate of gas being flowed is 129 thousand cubic feet per day (mscfd) (see Figure 1 pilot production plot below) and steadily continues to increase. However, given the time the Pilot has been dewatering, this rate of increase is still below the pre-drill expectation, even considering the various operational interruptions to the dewatering process. It is reported that the average well rate of the adjacent Moranbah Gas Project gas wells is 200 thousand cubic feet per day (mscfd)*.

Data to hand on the Sapphire Pilot also suggests that the lowest seams in both Sapphire pilot sets have still not been de-pressured sufficiently (through continuous dewatering) to promote effective gas desorption, as the water levels remain above these seams. We anticipate that the ongoing dewatering operation in these seams will lower the water levels, to promote desorption, in the next month.

An independent review was initiated to investigate the potential causes of the sub-optimal gas rates achieved so far at the Sapphire 5/6 Pilot location and to formulate options to best optimize the gas flow rate in the area of the Sapphire Block.

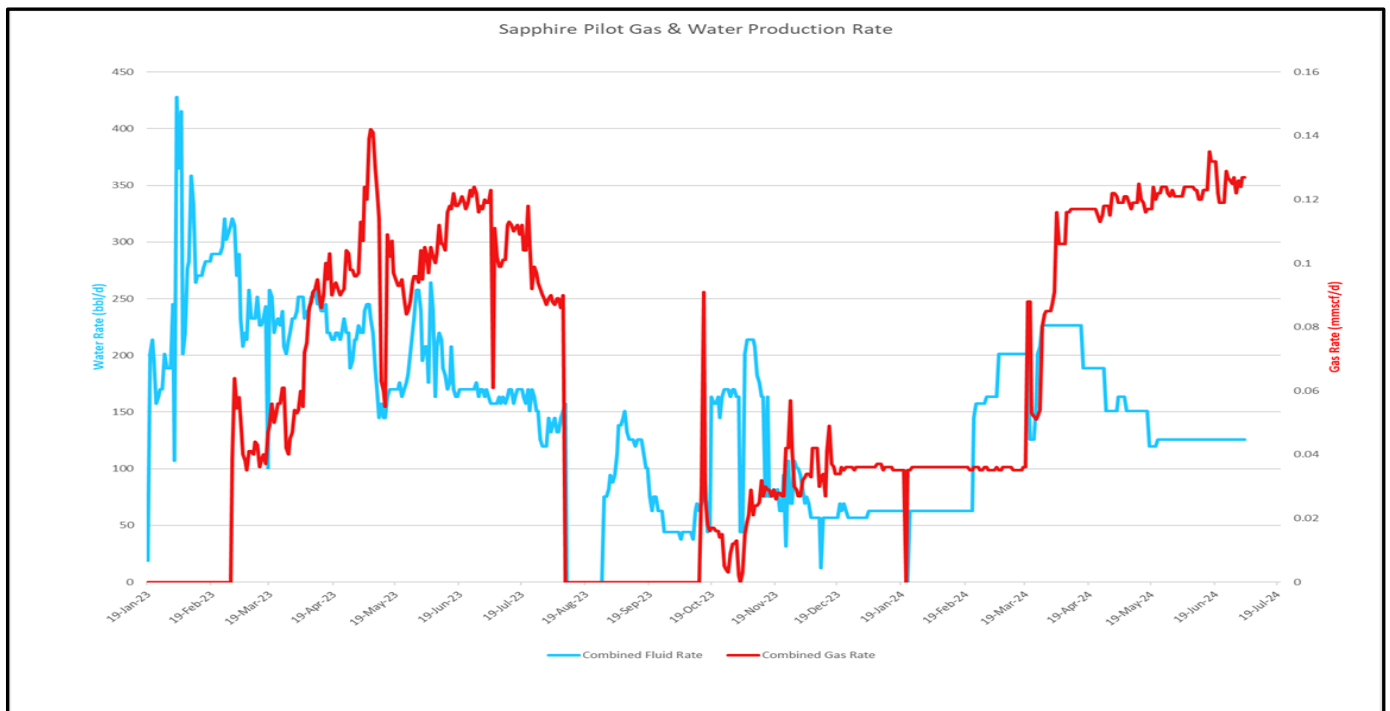


Figure 1: Sapphire Pilot gas and water production chart

*ASX:QPM release 9th July 2024 <https://announcements.asx.com.au/asxpdf/20240709/pdf/065f2n9djbw9tm.pdf>

The review of the Sapphire Pilot lateral well drilling operations has identified a component of the drilling fluid program that appears to have damaged the coal interface during the drilling process and which, in turn, has impeded the ability of the gas saturated coals to flow at their optimal rate.

A viscosifier (often used as an additive to drilling fluid, to assist in hole cleaning at certain times in the drilling process) was used as a hi viscosity sweep component as an initial response to the stuck in hole issues experienced on Sapphire 5L2. This additive has been shown to have a deleterious effect on the gas productivity in Permian aged coals in other locations in the Bowen Basin, and the impact of this additive at Sapphire (and in the volumes estimated by the review) and its prolonged use, was not identified at the time of drilling.

Assessment of the independent reviews recommendations is currently being undertaken by the Board and Management, with one of the recommendations contemplated being a low-cost re-drill (twinning) of one of the existing lateral wells to target a single coal seam but with a dedicated specific drilling fluid program with no additives.).

Once a decision has been made on the options to move the pilot forward, we will update the market.

By Authority of the Board per:

John Phillips
Managing Director
Blue Energy Limited