

# Dorado-3 wireline results support flow testing

4 September 2019



- Dorado-3 well wireline results confirm hydrocarbons in the Caley, Baxter and Crespin intervals
- Flow testing planned across the Caley and Baxter intervals
- Flow tests to provide critical production and fluid data to underpin development planning & FID

Carnarvon Petroleum Limited (“Carnarvon”) (ASX:CVN) is pleased to announce that the wireline logging of the Dorado-3 well has successfully confirmed hydrocarbon bearing reservoir within the Caley, Baxter and Crespin intervals.

In the Caley reservoir, being the primary target, the Dorado-3 well intersected predominantly oil bearing hydrocarbons in high-quality reservoir. Pressure data indicates the reservoir is in communication with the equivalent reservoirs encountered in the Dorado-1 and Dorado-2 wells. No water contact was identified.

The Caley formation results provide important definition of the required facilities for developing this field, providing important confidence around progressing to flow test operations.

In the Baxter reservoir, a secondary target, the wireline logging also confirmed that a hydrocarbon column was encountered with no water contact identified. Pressure data also indicates the column is in communication with the equivalent reservoirs encountered in the Dorado-1 and Dorado-2 wells.

The Crespin reservoir appears to have encountered hydrocarbons in an area that was expected to be water-wet. This result may ultimately provide further minor refinement to the resource estimate in this interval.

The Milne interval sought to test a section of the reservoir that provided encouraging indications on seismic data of thicker and better developed reservoir. The Milne reservoir at the Dorado-3 location proved to be water wet. The Dorado-3 well tested a small area within the overall Milne reservoir that has proved successful in the Dorado-1 and Dorado-2 well results. This result will provide further minor refinement to the resource estimate in this interval, however it is not expected to be material.

Overall, the wireline results in the Dorado-3 well strongly support progressing to the two planned flow tests of the Caley and Baxter intervals. The flow tests are the last key variable required to progress to development planning activities.

Managing Director Adrian Cook said

*“The key static field uncertainties were largely resolved with the Dorado-1 and Dorado-2 wells. The Dorado-3 well is important in providing critical flow test and fluid data to underpin field development planning and a final investment decision to progress to development.*

*The Dorado-3 wireline results strongly support progressing to the flow testing stage.*

*Dorado has been proven to be a large world class resource, located in an ideal jurisdiction and operated by a quality partner.*

*The Joint Venture is now one small step away from entering the front-end engineering and design phase for the field development, likely to encompass the development and production of the liquids component initially.*

*I'm very pleased with the result from this well and continue to be incredibly excited for the future of our Company."*

Dorado resides in WA-437-P in which Carnarvon holds a 20% interest.

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## Technical Appendix

Since the last update, the well has drilled ahead to a total depth of around 4,643 metres Measured Depth (“MD”) and wireline logging is still in progress. Approximately 60 metres of whole well bore core has also been extracted across the Milne reservoir.

At the completion of the wireline logging program, a 7” liner will be set in place and the well prepared for well testing operations

### Caley Member

Interpretation of wireline logs confirmed hydrocarbons are present throughout the Caley Member in the Dorado-3 well. Available pressure data indicates the hydrocarbons are in communication with Dorado-1 and Dorado-2.

Within the Caley Member, approximately 53 metres of predominantly oil bearing net pay with an average porosity of 16% was intersected in Dorado-3. Some stringers of non-net rock, isolated to the sections around the well, reduced the overall reservoir section in this well compared with that in the Dorado-1 and Dorado-2 wells. However, the Dorado-3 well is located close to the western limit of the Caley Member and the more centrally Dorado-1 and Dorado-2 wells are expected to be more representative of the average Caley Member reservoir quality across the field.

The mobility measured during pressure testing was also very similar to that of the other Dorado wells and indicates high permeabilities over the majority of the reservoir, confirming the well is suitable for well testing.

### Baxter Member

Interpretations from the wireline logging tools indicate the Baxter reservoir encountered a hydrocarbon column in Dorado-3 that is contiguous with the Baxter columns in the Dorado-1 and Dorado-2 wells.

No water was encountered in the Baxter Member in Dorado-3 as anticipated.

The pressure data is in a similar high-pressure regime as encountered in Dorado-1 and Dorado-2, indicating that the Baxter reservoir is continuous between the three wells.

Interpretation from the wireline logging data indicates the Dorado-2 well intersected around 9 metres of net pay with an average porosity of 12%.

The data from the Baxter reservoir indicates this zone as suitable for well testing.

### Crespin Member

While the Crespin member was not anticipated to intersect hydrocarbons in the Dorado-3 well, interpretation from wireline indicates a hydrocarbon column of around five metres with an average porosity of around 9%.

Further data is required to confirm this interpretation and the connectivity to the column intersected in Dorado-1.

The Crespin result is not expected to have a material impact on current estimate of volumes.

## Milne Member

Data interpreted from the wireline logging tools have indicated that no hydrocarbons were intersected in the Milne Member in the Dorado-3 well.

Pressure data indicates that the water intersected in the Milne at Dorado-3 is not connected to the hydrocarbon columns intersected in Dorado-1 and Dorado-2.

The Dorado-3 well was targeting a section of the field that in the Milne has higher seismic amplitudes with potential for disconnection from the reservoirs encountered in Dorado-1 and Dorado-2 (see Figure-1). These higher amplitudes are now interpreted to define the extent of the isolated water-bearing sands encountered in Dorado-3. The area of these higher amplitudes accounts for less than 10% of the total Milne area and as such, the result in the Milne in Dorado-3 is not expected to have a material impact on the overall assessment of hydrocarbons in the Dorado field.

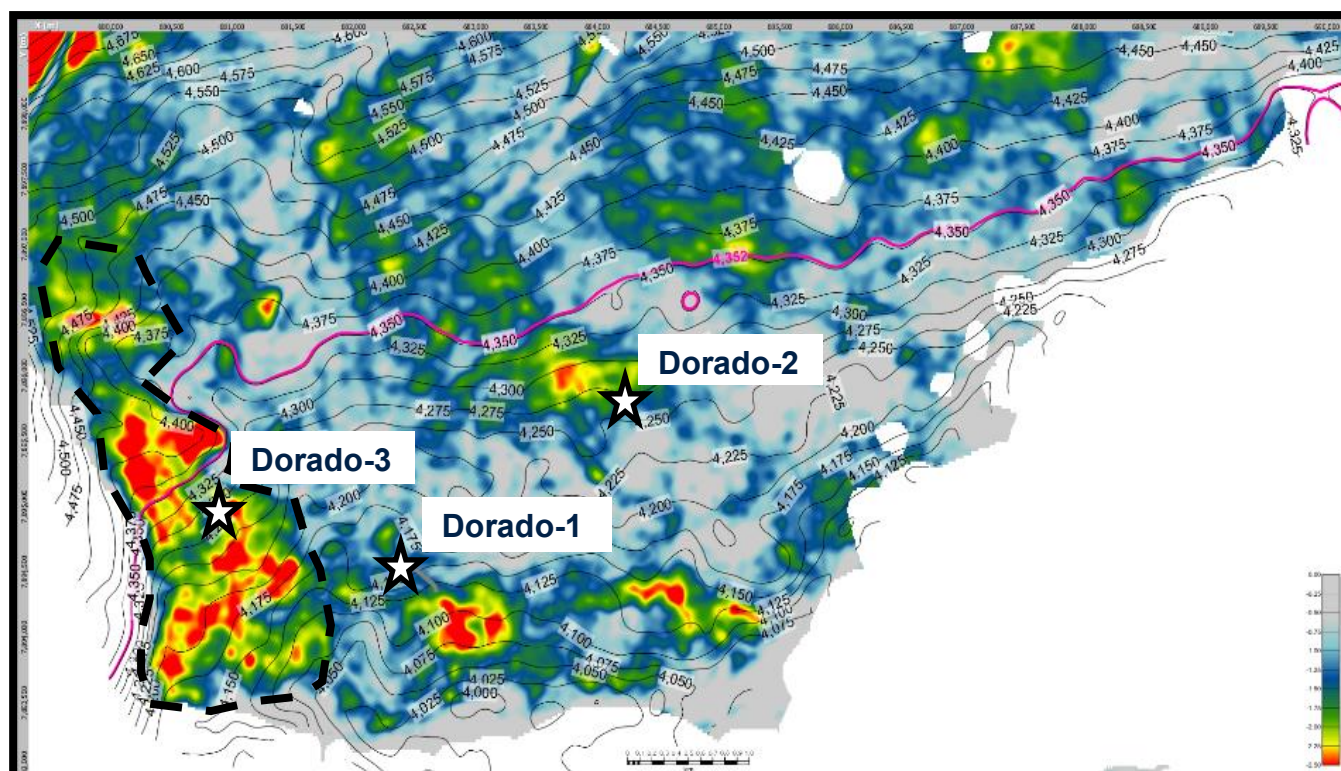


Figure 1: Milne interval amplitude map with depth contours – the high amplitude section targeted in Dorado-3 drilling operation is highlighted using the dotted black line.

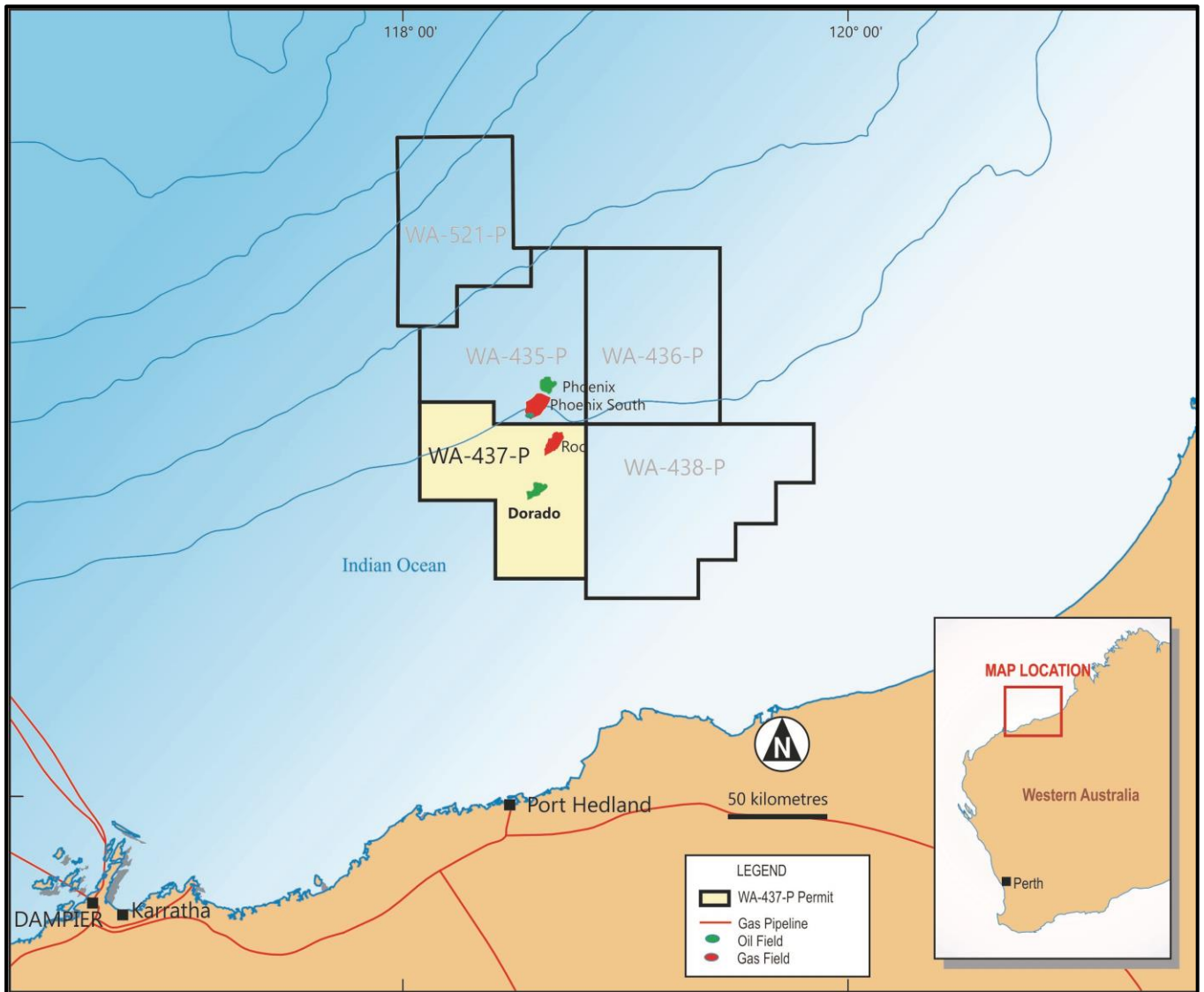


Figure 2 – Map of WA-437-P showing the Dorado field