

# Dorado-2 drilling commenced

03 May 2019



- Drilling of the Dorado-2 appraisal well has now commenced
- Current operations involve preparing to drill the 17 ½" hole section
- The Dorado-2 well is appraising the 2018 Dorado oil and gas discovery

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to provide the following update on the commencement of drilling of the Dorado-2 well.

## Progress

Since arriving at the Dorado-2 location, approximately 2.2 km from the original Dorado-1 well location, the rig has successfully concluded the ready to operate process and has drilled the surface hole and installed the surface casing.

## Forward Plan

The rig will drill the 17 1/2" hole to the planned section depth of approximately 1,200 metres Measured Depth ("MD") followed by setting the 13-3/8" casing.

## Well Objective

Dorado-2 is the first appraisal well of the Dorado oil and gas field which was discovered in the latter half of last year (see ASX announcements released 18 July, 24 July, 8 August and 20 August 2018).

Dorado-1 discovered hydrocarbon bearing reservoirs in the Caley, Baxter, Crespin and Milne Members of the Lower Keraudren Formation.

The Dorado-2 well is located approximately 160km north-northeast of Port Hedland in the Bedout Sub-basin. Drilling is in approximately 95 metres water depth (see Figure 1) with the Dorado-2 location being around 2.2km away from the Dorado-1 discovery location.

Refer to the Technical Appendix for further details on the Dorado-2 well.

Following the Dorado-2 well, the rig is scheduled to drill the near-field exploration well Roc South-1 (see ASX announcement 29 January 2019) followed by the Dorado-3 appraisal well.

Dorado and Roc South reside in WA-437-P in which Carnarvon holds a 20% interest.

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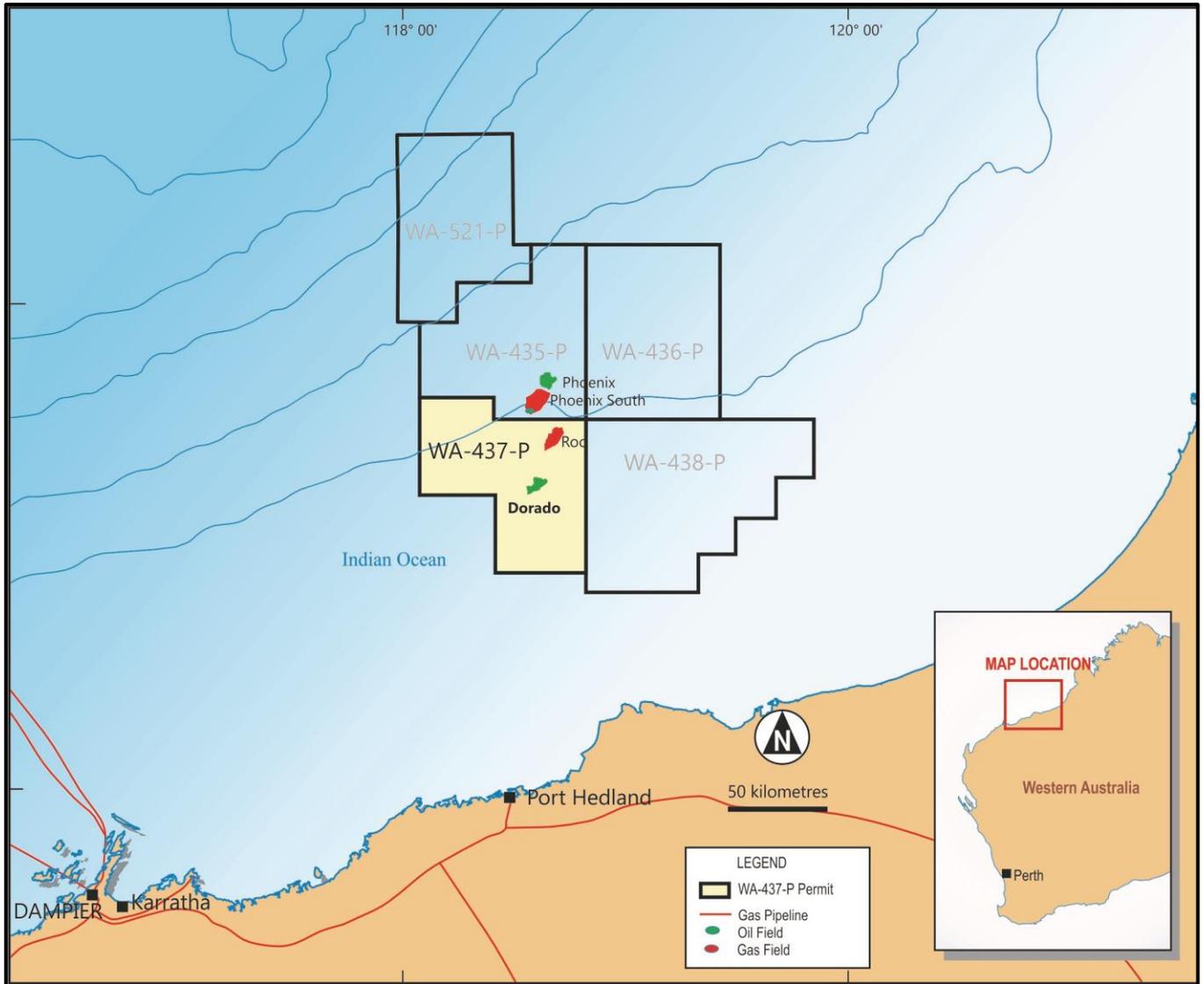


Figure 1 – Map of WA-437-P showing the Dorado field

## Technical Appendix – Dorado-2 well objectives and well plan

The Dorado-2 well is appraising the oil and gas discovered in the Dorado-1 well in 2018.

Several independent hydrocarbon columns were intersected in the Dorado-1 well, with only one interpreted water contact within the Crespin Member. The hydrocarbon columns in the Caley, Baxter and Milne were interpreted to extend beyond the reservoir intersected in the Dorado-1 well.

The Dorado-2 well, located approximately 2.2km from the Dorado-1 location, is targeting those reservoirs in a down-dip location as depicted in Figure 2.

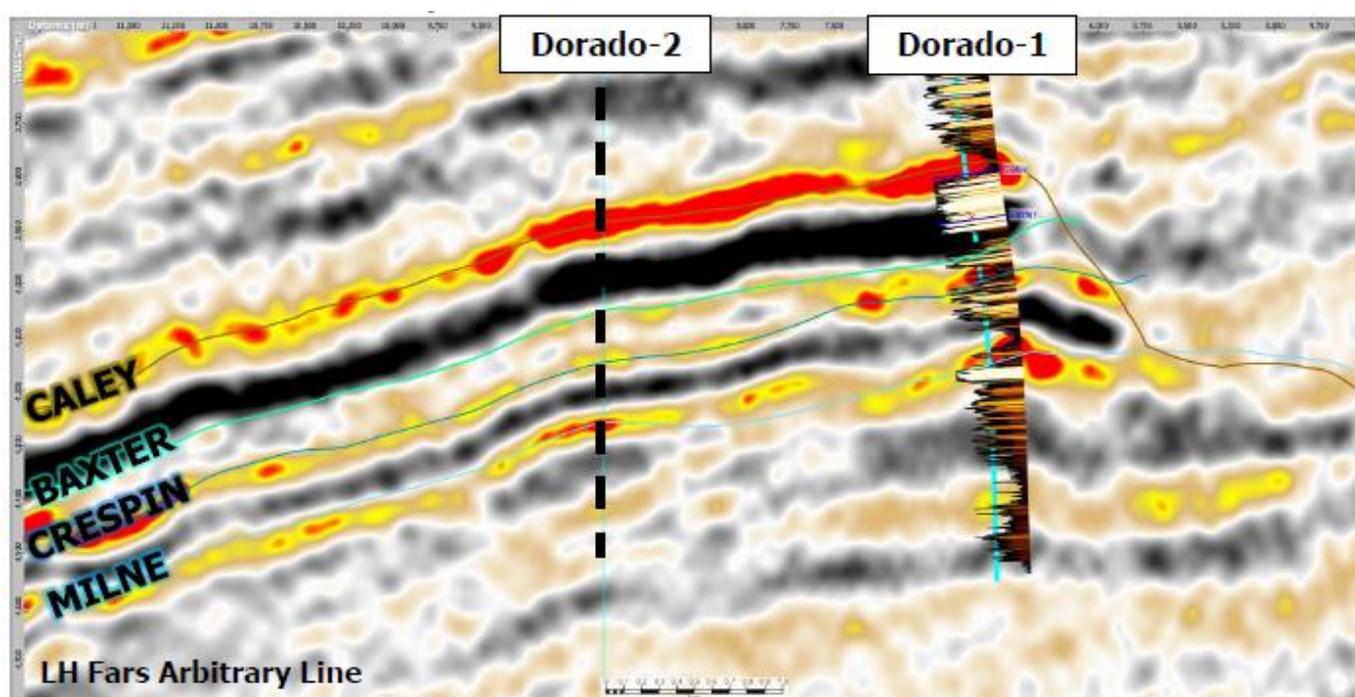


Figure 2 – Location of Dorado-2 down-dip of Dorado-1

The Dorado-2 well has several objectives designed to increase the certainty regarding the hydrocarbon contacts and further understand the characteristics of the key reservoirs.

While the well has been designed to intersect potential hydrocarbon-water contacts in the main Caley reservoir, the location for the Dorado-2 well has also been chosen to intersect hydrocarbons in the Baxter and Milne reservoirs.

### Caley Reservoir

The Dorado-1 well intersected net 130 metres of hydrocarbons of which almost 80m was within the Caley reservoir, thus making this the main target for the appraisal well. Dorado-2 has been planned to intersect hydrocarbons within the Caley reservoir and extending the oil column, either by encountering a hydrocarbon-water contact or in the high case increasing the oil down to.

Dorado-2 is expected to encounter similar high quality reservoir to that discovered in Dorado-1 in the Caley. To confirm this, a full well-bore core is planned to be extracted over the Caley section.

## **Baxter Reservoir**

A hydrocarbon charged Baxter sandstone was encountered near the base of the 8 1/2" hole section in the Dorado-1 well. Owing to the close proximity to the liner shoe, the entire Baxter interval was not able to be logged using wireline tools. Based on information that was obtained, the Baxter sandstones were interpreted to be entirely gas-condensate saturated, indicating the well did not encounter a hydrocarbon-water contact in this section.

The Dorado-2 well is designed to encounter the Baxter sandstones above any interpreted hydrocarbon-water contact. The analysis from the Dorado-1 well suggests that an oil leg could be present below the interpreted gas column.

The full well bore core will be extended to include the Baxter Member.

## **Crespin Reservoir**

The petrophysical data from the Dorado-1 well indicates a preliminary hydrocarbon-water contact was encountered in that well.

Dorado-2 is not expected to encounter hydrocarbons in the Crespin Member however important information regarding the reservoir properties will be collected and used for future resource analysis.

## **Milne Reservoir**

An 18 metre net hydrocarbon charged reservoir section was discovered in the Dorado-1 well in the Milne Member. Analysis of the data collected in this reservoir suggests that a hydrocarbon-water contact was not encountered in this section.

The Dorado-2 well is targeting a sandstone body in the Milne Member above the interpreted hydrocarbon-water contact in order to understand the extent of the column height and quality of the reservoir away from the discovery well.

## **Well Plan**

It will take approximately one month to drill and set the surface and intermediate casings to a point just above the main Caley reservoir. An approximate 200 metre full well-bore core will then be cut and extracted over the Caley and Baxter reservoirs. The core will be cut over an approximate two-week period during which very limited formation evaluation data will be available. The well will then be drilled to final depth of around 4,550 metres before wireline logging will commence. At the completion of the wireline logging program the Joint Venture will be able to ascertain the quality of the reservoirs encountered and the presence and composition of hydrocarbon fluids.

At the end of the wireline operations, set to take approximately one week, the expectation is that the well will be plugged and all equipment removed.