

Rig mobilised to Apus-1 well

4 April 2022



Highlights

- Noble Tom Prosser jack-up drilling rig mobilised to the Apus-1 well site
- Apus-1 is targeting the same reservoirs and trap style that proved successful at Dorado and Pavo
- Significant liquids resource estimate of 235 million barrels (gross, Pmean) within Apus prospect

Carnarvon Energy Limited (“Carnarvon”) (ASX:CVN) is pleased to announce that the Noble Tom Prosser jack-up drilling rig has mobilised to the Apus-1 well location, and expects to commence drilling operations within a week.

The rig recently completed drilling the successful Pavo-1 well in proximity to the Apus-1 well location, which resulted in a material oil discovery.

Carnarvon estimates a gross mean recoverable volume of **235 million barrels of liquids and 408 billion cubic feet of gas** in the Caley and Milne sands within the Apus structure, with Carnarvon holding an average interest of ~25% in the target resource.

***ASX disclosure:** Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project and may relate to undiscovered accumulations. These prospective resource estimates have an associated risk of discovery and risk of development. Further exploration and appraisal will be required to determine the existence of a significant quantity of potentially moveable hydrocarbons.*

Carnarvon Managing Director and CEO, Mr Adrian Cook, said:

“The recent Pavo-1 well result was a tremendous outcome, as it delivered a substantial resource for future production and greatly strengthened our confidence in the much larger areal extent of the working petroleum system in the Bedout Sub-basin.

Apus is one of the larger prospects within Carnarvon’s Bedout Sub-basin portfolio, which comprises around 100 known prospects.

Carnarvon is looking forward to the Noble Tom Prosser drilling rig very shortly commencing the Apus-1 well.

The company hopes to share results from the Apus-1 well in coming weeks, with drilling activity anticipated to take approximately a month.”

The Caley Member sands will be the first of two target reservoirs in the Apus-1 well.

The Caley Member sands flow tested at equipment limits of around 11,000 barrels of oil per day in the Dorado-3 well in 2019. They were also oil bearing in excellent reservoir sands in the Pavo-1 well.

The second primary target reservoir in this well is the Milne Member sands, below the Caley. The Milne was hydrocarbon-bearing in the Dorado field.

The Dorado and Pavo results now prove that the petroleum system in the Bedout Sub-basin is effective over a significant area, with the Pavo-1 well lying 46 kilometres east of the Dorado field.

In context, the Apus-1 well location is 27 kilometres southwest of the Pavo-1 well and 31 kilometres southeast of the Dorado field.

The learnings from Pavo-1, together with the outcomes at Dorado, bode well for Apus-1 and a very large suite of near field prospects that are currently being investigated in detail by the joint venture.

Further details on the Apus prospect are outlined in the annexure to this announcement.

Equity participation

The Apus-1 well is located in the WA-437-P exploration permit in which Carnarvon holds a 20% interest.

The Apus prospect straddles the boundary between the WA-437-P and WA-438-P exploration permits, with the resource interpreted to extend into WA-438-P in which Carnarvon holds a 30% interest (resulting in an average interest of ~25%).

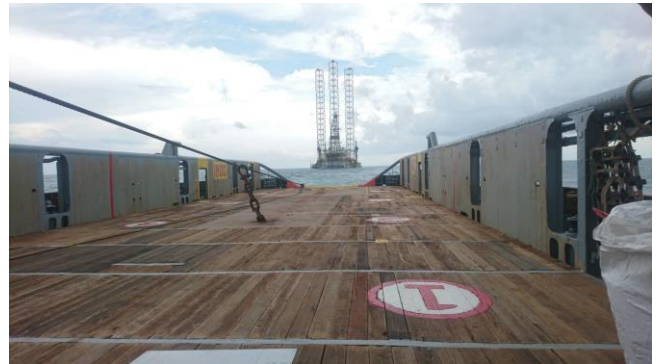


Image: Noble Tom Prosser drilling rig

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Annexure: further information on the Apus prospect

The Apus-1 well is located in WA-437-P and lies approximately 160 kilometres north-northeast of Port Hedland, around 31 kilometres southeast of the Dorado field and about 27km southwest of the Pavo field.

The Apus prospect, like the Dorado and Pavo fields, is also in the Bedout Sub-basin, and resides in approximately 84 metres water depth (see Figure 1).

The Apus-1 well will be targeting a similar trap style to Dorado, namely the Caley Member sands under Hove Member shale seals with lateral canyon-fill shales. A second reservoir is expected to be provided by the intra-Archer Formation's Milne Member. The main difference between Apus and Dorado is that the lateral seal for the larger closure will be provided by both the Apus Canyon fill and the Dorado Canyon fill (Figure 2).

The Apus-1 well has the potential to deliver considerable information relating to the larger Apus structure, which includes the Apus Trunk prospect. Positive results in this regard could enhance Carnarvon's current volumetric estimates.

At this time, Carnarvon has estimated a gross mean recoverable volume of 235 million barrels of oil and 408 billion cubic feet of gas, from the two target sands in the main Apus structure, which includes Apus West and Apus East. Carnarvon ascribes a 23 per cent geological probability of success.

Key risks for the prospect are similar to those at Pavo prior to the drilling of Pavo-1. These include hydrocarbon charge (long-range migration) and top-seal (thickness). The Pavo-1 well has proven long-range migration and effective top-seal at the Pavo structure, which is further from the Dorado field than Apus. The higher risk for Apus-1 relative to Pavo's pre-drill estimate of 34% relates mainly to more complex interpreted charge/migration pathways.

The large-scale volume potential makes Apus a very exciting drill prospect. In a success case, a tie back to the Dorado hub, along with the recently discovered Pavo oil, would be a compelling option to develop the resource.

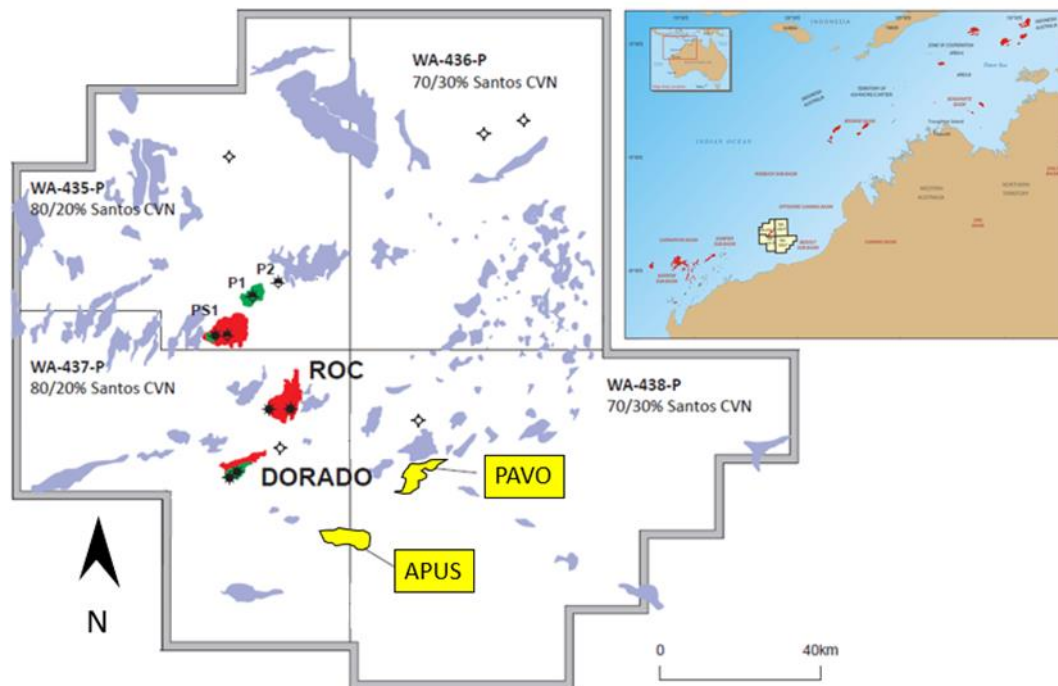
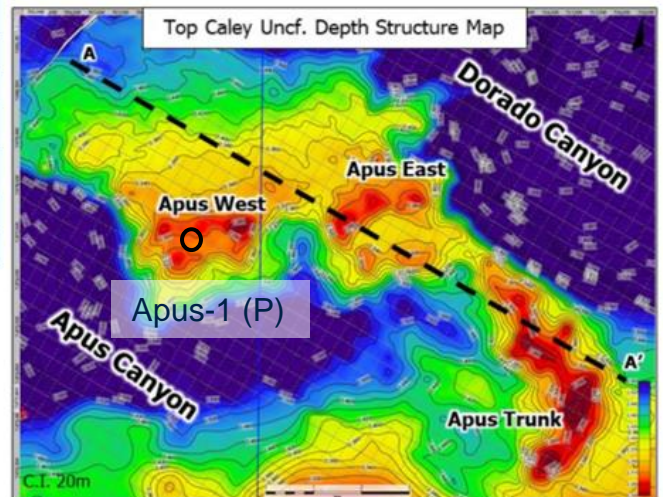
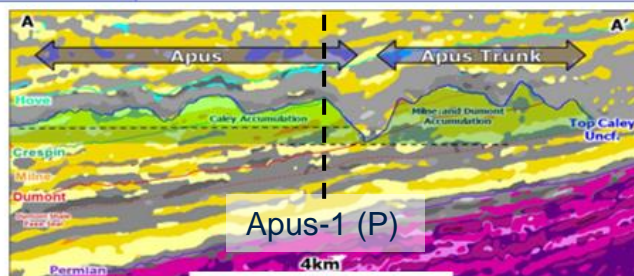


Figure 1: Apus-1 well location map

Location, WD	<ul style="list-style-type: none"> WA-437-P (Santos 80%, Carnarvon 20%) 31km southeast of Dorado, 84m water depth
Rig	<ul style="list-style-type: none"> Noble 'Tom Prosser' jack-up
Trap	<ul style="list-style-type: none"> Archer Fm. closure & channel truncation plays
Targets	<ul style="list-style-type: none"> Primary: Caley & Milne Member sands, Hove Fm. seal Secondary: Lwr Archer Fm. (Dumont), Permian
Volumes, Pg	<ul style="list-style-type: none"> Liquids: 235mmbbbl; Gas: 408Bcf (100%, mean); 23% (not including Apus Trunk)
Key Risks	<ul style="list-style-type: none"> Charge, Top-seal
Dev't Concept	<ul style="list-style-type: none"> 25-35km subsea tieback to Dorado facility



(*Pg = Probability of geological success)

Figure 2: Details of Apus-1 target

Further prospective resource information

The estimates of prospective resources included in this announcement have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS. Please refer to Carnarvon's ASX announcements of 15 October 2018 and 27 September 2020 for more information.

A combination of deterministic and probabilistic methods were used to prepare the estimates of these prospective resources.

The resource estimates outlined in this announcement were compiled by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the company. Mr Huizenga has over 25 years' experience in petroleum exploration and engineering. Mr Huizenga holds a Bachelor Degree in Engineering, and a Masters Degree in Petroleum Engineering. Mr Huizenga is qualified in accordance with the ASX Listing Rules and has consented to the form and context of this announcement.

Carnarvon is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates in this announcement continue to apply and have not materially changed.

Forward-looking statements

This announcement contains certain "forward-looking statements", which can generally be identified by the use of words such as "will", "may", "could", "likely", "ongoing", "anticipate", "estimate", "expect", "project", "intend", "plan", "believe", "target", "forecast", "goal", "objective", "aim", "seek" and other words and terms of similar meaning. Carnarvon cannot guarantee that any forward-looking statement will be realised. Achievement of anticipated results is subject to risks, uncertainties and inaccurate assumptions. Should known or unknown risks or uncertainties materialise, or should underlying assumptions prove inaccurate, actual results could vary materially from past results and those anticipated, estimated or projected. You should bear this in mind as you consider forward-looking statements, and you are cautioned not to put undue reliance on any forward-looking statement.