

Apus prospect update

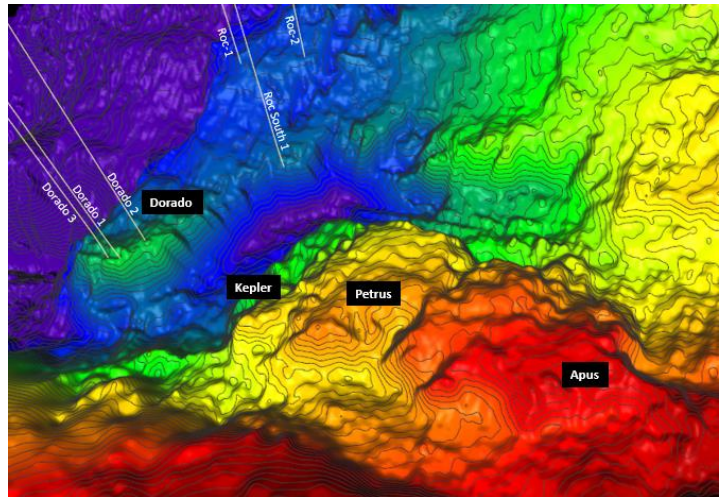
17 September 2020



- **New 3D seismic data vastly improves the quality of prospect interpretation around Dorado**
- **Previous 2D based Apus feature now comprises three leading prospects in Apus, Petrus and Kepler**
- **The three prospects are estimated to contain an aggregate 293 million barrels of oil (Gross, Pmean)**

The volumes in this announcement refer to prospective resources, which are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project and relate to undiscovered accumulations. These prospective resource estimates have an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Carnarvon Petroleum Limited (“Carnarvon”) (ASX:CVN) has progressed its interpretation of the new Keraudren 3D seismic focusing on the Apus, Petrus and Kepler prospects. These were previously covered by the Bilby 2D data and the current interpretation on the new 3D data now provides a higher level of confidence over these targets.



The primary reservoirs are similar to those that have proven successful in the Dorado field. Further prospectivity is interpreted in the untested Dumont member.

The Apus, Petrus and Kepler prospects are estimated to contain 235 million, 46 million and 12 million barrels of oil respectively (Gross, Pmean), plus associated gas.

Carnarvon’s Managing Director and Chief Executive Officer, Adrian Cook said:

“In addition to the work being undertaken around the Dorado field development, we continue to assess new growth opportunities through exploration. The Apus structure has both targets that may result in new standalone fields or that maybe tied into the planned Dorado oil field facility.

Options for exploration drilling are being advanced, recognising that a decision to commit to a drilling rig will be subject to an assessment of business conditions at the time.

Carnarvon’s commanding position in the Bedout sub-basin is a rare and valuable asset. Dorado is a highly attractive field in the early phases of its development life cycle. But the addition of large and highly prospective exploration targets nearby is very unique. Typically, assets of this nature are held in much larger organisations. But in this case, Carnarvon represents an unmatched investment proposition, offering exposure to the high-quality Dorado field and significant additional upside nearby.

Apus Prospect

Gross Unrisked Prospective Resources - Apus	P90	P50	Pmean	P10	Pg
Oil and condensate ("liquids") (million barrels)	26	160	235	537	23%
Gas (billion standard cubic feet)	30	211	408	963	
Liquids and Gas Combined (million barrels of oil equivalent)	31	197	307	706	

The Apus prospect resides in shallow water at a depth of around 75 metres and has a shallow depth to the top of the reservoir of less than 2,500 metres. This is significant in that reservoir properties generally improve at shallower depths, and given the already proven deliverability of the equivalent reservoirs at Dorado some 2,000 metres deeper, reservoir quality is not identified as a risk at Apus.

An upside discovery outcome at Apus could support a standalone development. A tieback to Dorado is also considered possible, with the benefit of extending the maximum liquids rate plateau and enhancing both the value of the combined project and the longevity of the production facilities. In addition to this, the shallow target means there is likely a higher ratio of liquids (relative to gas) compared with the Dorado field.

Petrus and Kepler Prospects

Gross Unrisked Prospective Resources - Petrus	P90	P50	Pmean	P10	Pg
Oil and condensate ("liquids") (million barrels)	12	36	46	90	29%
Gas (billion standard cubic feet)	15	53	79	170	
Liquids and Gas Combined (million barrels of oil equivalent)	15	46	60	120	

Gross Unrisked Prospective Resources - Kepler	P90	P50	Pmean	P10	Pg
Oil and condensate ("liquids") (million barrels)	3	8	12	26	30%
Gas (billion standard cubic feet)	3	12	21	47	
Liquids and Gas Combined (million barrels of oil equivalent)	3	11	16	34	

Further prospectivity is also recognised within the Petrus and Kepler prospects. These prospects lie in a water depth of approximately 85 metres, meaning drilling can also be achieved using a lower-cost jack-up type drilling rig.

Significantly, Kepler and Petrus are only some 14 and 18 kilometres respectively to the East of the proposed location of the Dorado field. These relatively short distances enhance the value of these prospects, since any discovery can be tied-back to the Dorado field processing equipment. Utilising Dorado field processing equipment and sharing operating costs means the cost to develop and operate these fields would be low, directly enhancing the value per barrel of any discovery, and also extending the life of the planned development at Dorado.

Dorado oil field

The Floating Production Storage and Offtake vessel and Well Head Platform designs for the Dorado oil field currently allows for the potential tie-back of future discoveries.

The composition of the prospective resources in Apus, Kepler and Petrus are expected to be capable of being processed by currently designed equipment due to the high confidence of them having similar fluid characteristics to the Dorado field.

Pavo and other nearby prospects

Carnarvon's technical work is currently focused on the interpretation of the Pavo prospect and a number of additional new prospects close to the proposed Dorado oil field development. Once this work has been matured it will be reported upon in a series of future updates.

Approved by

A handwritten signature in black ink, appearing to read "AC", positioned above the name Adrian Cook.

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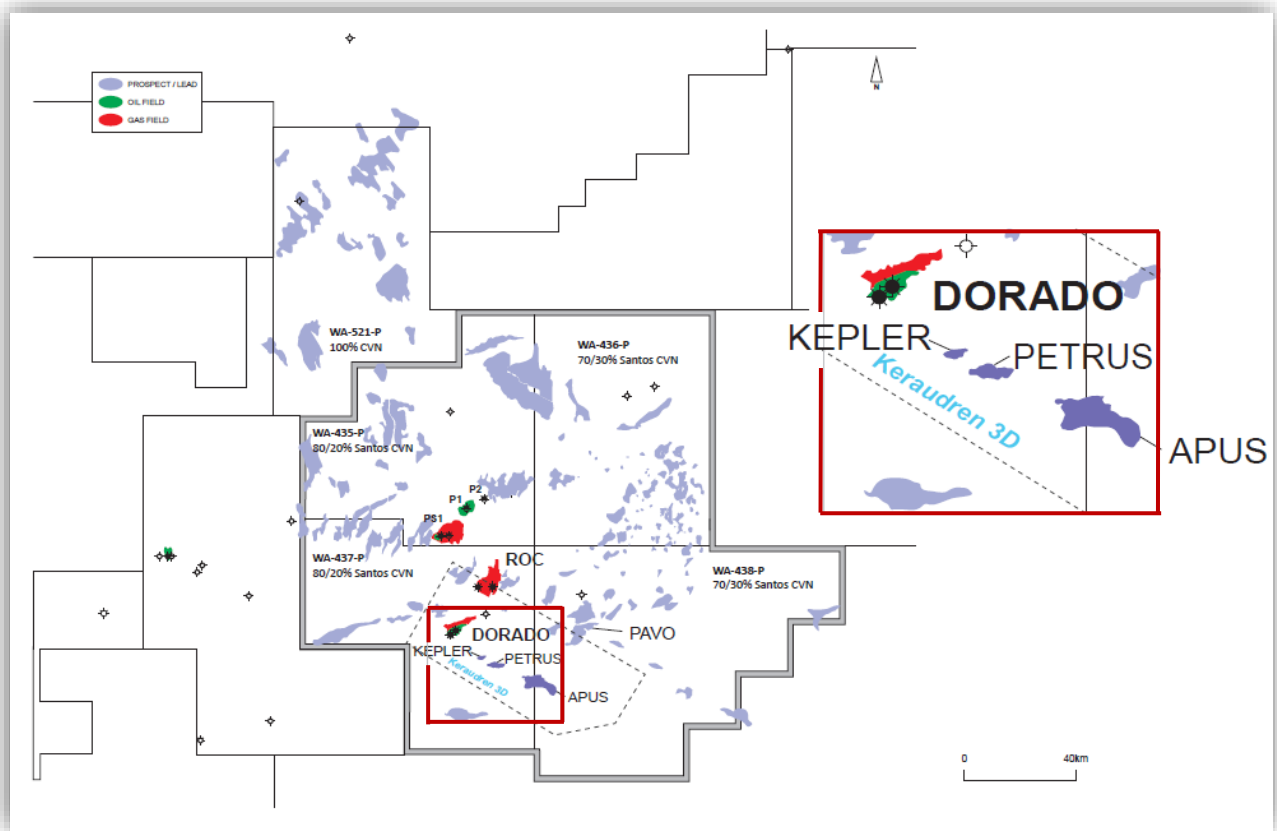


Figure 1: Location of the Apus, Petrus and Kepler structures in relation to Dorado

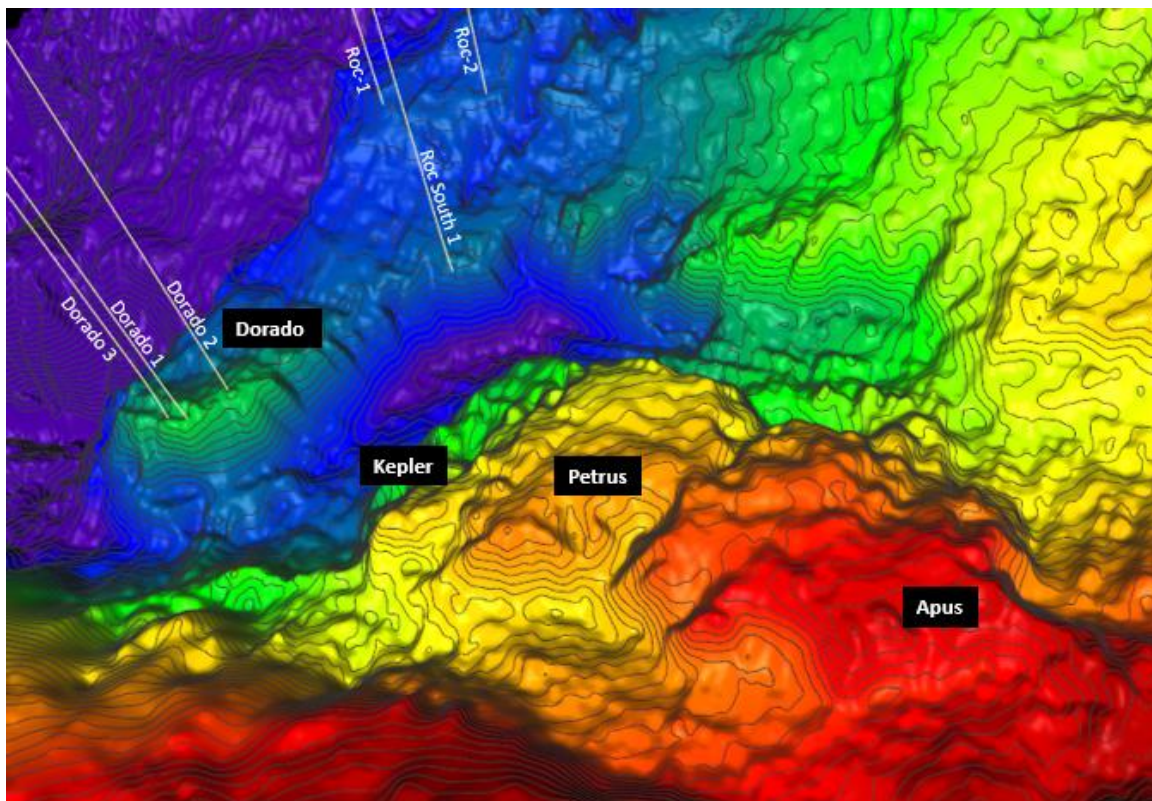


Figure 2: Keraudren 3D seismic at top Caley interval from Roc to Dorado to Apus

Annexure

Further Technical Information

Apus Area - Gross Prospective Resources

	Liquids (Oil and Condensate)				Natural Gas				Barrels of Oil Equivalent				Probability Geological Success
	MMBBL P90	MMBBL P50	MMBBL Pmean	MMBBL P10	BSCF P90	BSCF P50	BSCF Pmean	BSCF P10	MMBOE P90	MMBOE P50	MMBOE Pmean	MMBOE P10	
Apus	26.0	160.0	235.0	537.0	30.3	211.0	408.0	963.0	31.3	197.0	306.6	705.9	23%
Petrus	12.3	36.3	45.6	90.4	15.0	52.6	79.4	170.0	14.9	45.5	59.5	120.2	29%
Kepler	2.8	8.4	12.0	25.5	3.1	12.2	21.1	47.2	3.3	10.5	15.7	33.8	30%
Total	41.1	204.7	292.6	652.9	48.4	275.8	508.5	1,180.2	49.6	253.1	381.8	860.0	

Apus Area - Net Prospective Resources

	Liquids (Oil and Condensate)				Natural Gas				Barrels of Oil Equivalent				Probability Geological Success
	MMBBL P90	MMBBL P50	MMBBL Pmean	MMBBL P10	BSCF P90	BSCF P50	BSCF Pmean	BSCF P10	MMBOE P90	MMBOE P50	MMBOE Pmean	MMBOE P10	
Apus	6.5	40.0	58.8	134.3	7.6	52.8	102.0	240.8	7.8	49.3	76.6	176.5	23%
Petrus	2.5	7.3	9.1	18.1	3.0	10.5	15.9	34.0	3.0	9.1	11.9	24.0	29%
Kepler	0.6	1.7	2.4	5.1	0.6	2.4	4.2	9.4	0.7	2.1	3.1	6.8	30%
Total	9.5	48.9	70.3	157.4	11.2	65.7	122.1	284.2	11.5	60.5	91.7	207.3	

Notes:

- 1) Prospective Resources are those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from undiscovered accumulations.
- 2) "Gross Prospective Resources" are 100% of the volumes estimated to be recoverable from any discovery without any economic cut-off being applied.
- 3) "Net Prospective Resources" are the percentage of Gross Prospective Resources that are net to the Company, and is 20% net to Carnarvon for Petrus and Kepler which lie wholly within the WA-437-P permit in which Carnarvon has 20% equity and is 25% net to Carnarvon for Apus which lies approximately half within the WA-437-P permit and half within the WA-438-P permit, in which Carnarvon has 30% equity
- 4) Volumes reported here are "unrisked" in the sense that no adjustment has been made for the risk that the quantities of petroleum may not be discovered.
- 5) Conversion from gas to barrels of oil equivalent is based on Gross Heating Value. The conversion is estimated at 5.7 Bscf/MMboe.
- 6) Prospective resources for each prospect have been calculated using probabilistic methodology
- 7) Totals shown in the tables above are the deterministic addition of the probabilistic resources estimated for each prospect. Assuming a degree of independency between prospects, deterministic addition will underestimate the low estimate and overestimate the high estimate

The prospective resources for the Apus prospect are an update to those disclosed by Carnarvon on 15 October 2018. The previous prospective resource estimate was based on the interpretation of 2D seismic data and the prospective resources in this announcement are based on the interpretation of newly acquired high-quality 3D seismic data (Keraudren 3D). Further information from the results of the Dorado-1 exploration well drilled in 2018, and the Dorado-2 and Dorado-3 appraisal wells drilled in 2019, together with the detailed analysis of this information with regards to the development of the Dorado oil field, have also contributed to this update.

The multiple stacked reservoirs discovered in Dorado prove that such formations are capable of being charged with hydrocarbons in this region. The prospect volumes for Apus, Petrus and Kepler are a consolidation of multiple reservoirs. There exists an opportunity to intersect hydrocarbon columns of different heights that may also extend deeper into the reservoir due to the likely existence of base seals.

The shallow reservoir depths and proximity to Dorado means that any hydrocarbons encountered are likely to have a similar oil and gas composition to those in the Dorado oil field.

The analysis from quantitative interpretation over the prospects has also indicated the potential for thicker and better-quality sands than those intersected at the Dorado oil field. This can be seen in the most likely lithology depicted in Figure 2 and supports the resource sizes calculated.

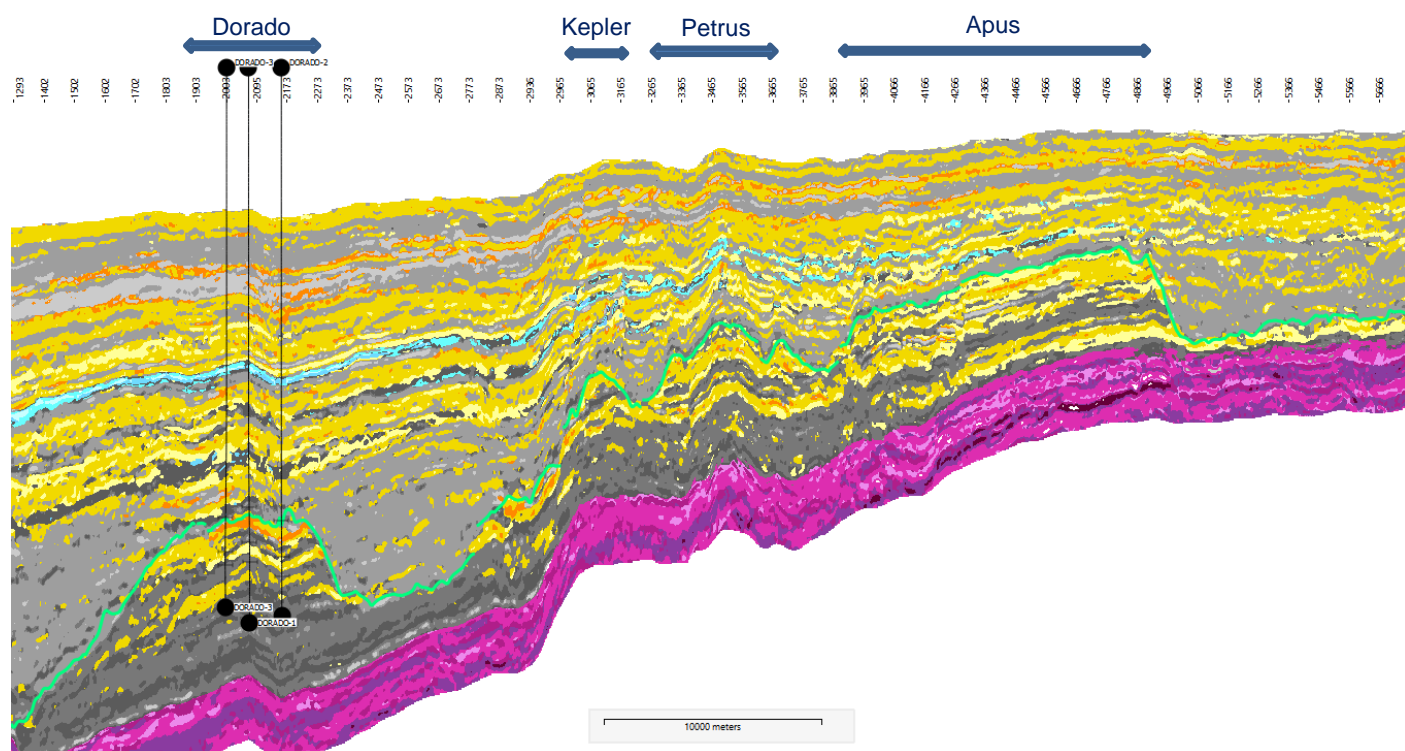


Figure 2: Quantitative interpretation mapping indicative of potential reservoir

The probability for geological success takes into account that the prospects are defined on high quality 3D seismic, with reservoirs that appear analogous to those proven at the nearby Dorado oil field, and situated within a similar geological environment. The prospects closer to the proven field (Kepler and Petrus) are deemed to have a slightly higher geological chance of success due to perceived better access to the same hydrocarbon sourcing as that charging the Dorado field.

Cautionary Statement

There are numerous uncertainties inherent in estimating reserves and resources, and in projecting future production, development expenditures, operating expenses and cash flows. Oil and gas reserve engineering and resource assessment must be recognised as a subjective process of estimating subsurface accumulations of oil and gas that cannot be measured in an exact way.

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 is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Competent Person Statement Information

The resource estimates outlined in this report 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, a Masters Degree in Petroleum Engineering and is a member of the Society of Petroleum Engineers. Mr Huizenga is qualified in accordance with ASX Listing Rules and has consented to the form and context in which this statement appears.

Forward Looking Statements

This document may contain forward-looking information. Forward-looking information is generally identifiable by the terminology used, such as "expect", "believe", "estimate", "should", "anticipate" and "potential" or other similar wording. Forward-looking information in this document includes, but is not limited to, references to: well drilling programs and drilling plans, estimates of reserves and potentially recoverable resources, and information on future production and project start-ups. By their very nature, the forward-looking statements contained in this news release require Carnarvon and its management to make assumptions that may not materialize or that may not be accurate. The forward-looking information contained in this news release is subject to known and unknown risks and uncertainties and other factors, which could cause actual results, expectations, achievements or performance to differ materially, including without limitation: imprecision of reserve estimates and estimates of recoverable quantities of oil, changes in project schedules, operating and reservoir performance, the effects of weather and climate change, the results of exploration and development drilling and related activities, demand for oil and gas, commercial negotiations, other technical and economic factors or revisions and other factors, many of which are beyond the control of Carnarvon. Although Carnarvon believes that the expectations reflected in its forward-looking statements are reasonable, it can give no assurances that the expectations of any forward-looking statements will prove to be correct.