

Q2

Quarterly Report
31 December 2017





Quarter Highlights:

- Drilling preparation for Phoenix South-3 underway with drilling expected to begin in March 2018
- Rig contract for Dorado-1 well signed with drilling expected to commence in May 2018
- Awarded Vulcan sub-basin permit AC/P62 where multiple leads have been identified
- Awarded Santa Cruz permit with existing discovery in permit
- A\$48.5 million held in cash after A\$1.1m exploration spend in the quarter

Managing Director's Comments

During the quarter, preparation continued for the Phoenix South-3 well where it is expected that drilling will begin in March 2018. The Company is excited to drill this well, which is effectively a re-drill of the Phoenix South-2 discovery and is a fantastic opportunity to add to the Company's discovered resources in the area. Furthermore, a significant portion of the Phoenix South-3 well costs will be covered by Carnarvon's insurance as the result of a successful control of the Phoenix South-2 well.

Additionally, Carnarvon and its Joint Venture partner, Quadrant Energy, have secured a rig contract for the Dorado-1 well. The well is expected to commence drilling in May 2018 and given the large size of the Dorado structure, this high impact exploration well could deliver considerable value to Carnarvon. The well is primarily targeting the Caley interval which contained oil and gas in the Roc and Phoenix South locations. Following this, the well will explore for additional resources in the deeper Milne interval.

Carnarvon has continued to acquire highly prospective acreage in Western Australia's North-West Shelf by adding two permits to its portfolio this quarter. Firstly, we were excited to announce the acquisition of the new permit AC/P62, also named the Condor Project. This permit lies in the Southern Vulcan Sub-basin within the highly prospective Bonaparte Basin. This is the Company's first permit in a proven basin which contains multiple oil fields and Carnarvon's early technical work has already identified multiple attractive oil leads to pursue. Carnarvon also acquired the Santa Cruz permit, EP-497, where the company plans to apply new technical work to fully understand a previous discovery in the permit.

There has been a lot of attention on the Buffalo project during the quarter, where the main focus has been on further improving the quality of the output from the full wave form inversion (FWI) processing which increases the confidence of the Buffalo oil field imaging. The team has also been re-running parts of the FWI process to obtain more detailed geological models which are forming the basis of Carnarvon's production optimisation models and field development concept selection. Additionally, the team has commenced identifying further prospectivity in the permit, which will be reported on later in 2018.

With a cash balance of A\$48.5 million at the end of the quarter, improving oil prices, two high impact wells commencing shortly and the Buffalo project materialising, Carnarvon is looking forward the 2018 calendar year with excitement and anticipation.



Phoenix Project

(Carnarvon 20%-30%; Quadrant Energy is the Operator)

During the quarter, the Joint Venture began preparations to drill the Phoenix South-3 well, with drilling expected to commence in March 2018. The Joint Venture has contracted the Transocean Development Driller-1 rig with the well expected to take around 90 days to drill to the target depth of around 5,156 metres.

The Phoenix South-3 well is designed as a re-drill of Phoenix South-2 which encountered elevated well pressures and was unable to be completed. As such, a significant portion of the drilling costs of the Phoenix South-3 well will be covered by an insurance claim.

The primary target of the Phoenix South-3 well is the Caley interval which contained oil and gas at Phoenix South-2 only some 550 meters away. The Caley structure is estimated to contain a gross mean recoverable prospective resource of 489 Bscf of gas and 57 million barrels of associated condensate, being 143 million barrels of oil equivalent (“boe”), gross, Pmean (refer to ASX Announcement on 28 March 2017).

Additionally, the Operator executed the contract to drill the Dorado-1 well with the Ensco 107 jack-up drilling rig. The well is expected to commence drilling in May 2018 and is estimated to take around 45 days to complete as it drills to a total depth of approximately 4,400 metres.

The primary target of the Dorado-1 well is also the Caley interval at around 3,760 metres following the discoveries at the Roc and Phoenix South locations. There are also a number of secondary targets beneath the Caley which the well is designed to evaluate.

Buffalo Project – WA-523-P

(Carnarvon 100% and operator)

During the quarter, the Company continued to advance work around the Buffalo Oil Field and is improving its confidence with respect to the recoverable oil remaining in the field. At the completion of an independent audit of Carnarvon’s technical work it is estimated that the field contains a Contingent Resource of 31 million barrels (2C) (refer to ASX announcement on 28 August 2017). At the best estimate (2C) of recoverable oil, the field has a revenue generating capacity of approximately US\$2 billion, at current oil prices.

Through the use of Full Waveform Inversion technology, Carnarvon was able to produce improved seismic imaging and mapping, which has provided superior information around the Buffalo Oil Field. Previous seismic issues led to suboptimal well placement and the recent technical work has recognised a significant area of unswept oil. The original Buffalo Project was still producing 4,000 barrels of oil per day when production ceased. The utilisation of modern technology and computing power, not available at the time of the original field development, is what has enabled the identification of the unproduced oil in this world class reservoir, where in the original development the initial production from two wells was around 50,000 bopd.

The company has completed independent peer reviews to the FWI work undertaken, which have proven successful, and is currently preparing a number of production and engineering models to enable the assessment of options to redevelop the oil field.



Condor Project – AC/P62

(Carnarvon 100% and operator)

Carnarvon was awarded the AC/P62 permit over an area of 1,512km² within the Vulcan sub-basin in the Bonaparte basin in November 2017. The proven oil producing Bonaparte basin on Western Australia's North-West Shelf contains numerous fields such as the Skua and Montara oil fields which are adjacent to the Condor project.

Carnarvon has identified several large Jurassic leads over multiple reservoir levels. In addition, there is the potential for secondary plays in the shallower, Late Cretaceous stratigraphy. With water depths of approximately 100 metres, there is a possibility to utilising lower cost jack-up drilling to pursue prospects. The shallow waters are also conducive to lower cost field developments.

Carnarvon will apply the Cygnus 3D survey recently acquired by Polarcus over 682km² of the permit. The data is expected to enable a high quality of interpretation over the Vulcan sub-basin as previous seismic interpretation has been hampered by aged poor quality seismic data. In the upcoming quarter, Carnarvon will progress its technical work over the area utilising the new 3D seismic and performing several geoscience work flows.

Labyrinth Project – WA-521-P

(Carnarvon 100% and operator)

The Company has completed its interpretation of the newly reprocessed 2D seismic data and has identified a number of large prospects. In particular, the Labyrinth and Mouse prospects are estimated to contain approximately 400 million barrels of recoverable oil each at the Pmean confidence level. The Company has also identified numerous other high-graded prospects and leads within the block and the total recoverable prospective resources is estimated to be over 1.5 billion barrels of oil at the Pmean confidence level (refer to ASX announcement on 13 June 2017). The Company is now preparing the project for a farm-out to introduce a partner to participate in 3D seismic acquisition and or a well.

Maracas Project – WA-524-P

(Carnarvon 100% and operator)

The reprocessing of the existing 3D seismic data over the permit continued during the quarter. The reprocessing includes the application of FWI technology that has demonstrated clear improvements in both the Phoenix and Buffalo projects. The reprocessed data is expected to assist with the mapping of existing leads and identifying new prospects. It is also expected to enable the Company to study the potential for hydrocarbon bearing sands in the permit. We expect to start seeing the FWI results for the project in the next quarter.



Santa Cruz – EP-497

(Carnarvon 100% and operator)

During the quarter, Carnarvon was awarded EP-497 inboard of the Carnarvon basin on the North-West Shelf. The permit contains the previously drilled Santa Cruz-1 well, drilled in 1994 which discovered a gas cap and possible oil discovery. However, due to poor 2D seismic data quality, the understanding of the exact scale of the structure is to this day uncertain.

Carnarvon plans to perform geological studies in the initial primary 2 years followed by an optional 4-year programme including an offshore geochemistry survey to define the extent of the oil discovery before committing to acquiring new 3D seismic or well within the permit in permit year 6. With very shallow water depths of between 10-20m the use of jack up drilling and low-cost development is possible.

Corporate / Financial

The Company's cash holdings at the end of the quarter were \$48.5 million, compared to \$50.0 million at the end of the previous quarter.

The Company's United States Dollar ("USD") holdings at the end of the quarter was US\$37.6 million with the balance being Australian Dollars. Carnarvon holds the majority of its cash in USD as a natural hedge to expected future USD denominated expenditures. The retention of predominantly US dollars influences Carnarvon's reported cash holdings due to AUD / USD exchange rates at each reporting period end.

A slight weakening of the average Australian Dollar relative to the US dollar during the quarter resulted in a foreign exchange translation adjustment that increased the Company's reportable cash holdings by A\$0.15 million.

During the quarter A\$1.1 million was spent on exploration activities in the North-West Shelf which includes the technical work on the Buffalo Project, the Phoenix Project and Carnarvon's other exploration projects. In addition to this \$0.6 million was spent on business development and corporate costs.

Abbreviations

Bopd	Barrels of oil per day
Bbls	Barrels of oil
OWC	Oil water contact
CVN	Carnarvon Petroleum Limited
JV	Joint Venture
Km	Kilometres
Km²	Square kilometres
m	Millions
Qtr	Quarter
Q/Q	Quarter on Quarter
Tcf	Trillion cubic feet (gas)
2D	Two dimension seismic data
MC2D	Multi-client 2D – seismic data acquired for multiple parties that require licensing
3D	Three dimensional seismic data
MC3D	Multi-client 3D – seismic data acquired for multiple parties that require licensing
USD	United States of America dollar

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.

Resources

All contingent and prospective resources presented in this report are prepared as at 14 November 2016, 28 March 2017, 13 June 2017 and 28 August 2017 (Reference: CVN ASX releases of 14 November 2016, 28 March 2017, 13 June 2017 and 28 August 2017). The estimates of contingent and prospective resources included in this announcement have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS and have been prepared using probabilistic methods.

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

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 and a Masters Degree in Petroleum Engineering. 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.