

## BUILDING ON DORADO SUCCESS

**ASX:CVN** 



# Managing Director's Comments

#### **QUARTER HIGHLIGHTS**

- Completion of farmout to Advance Energy to fund Buffalo-10 well.
  - Work progressed toward drilling Buffalo-10 well in H2 2021.
- Noble Tom Prosser rig secured to drill Pavo and Apus wells in the Bedout in late 2021 / early 2022.
- Dorado FEED to commence in upcoming quarter.
- → Strong cash balance of A\$103 million.

The first quarter of 2021 calendar year has positioned Carnarvon for an exciting year ahead. Multiple drilling operations are progressing to plan as well as the advancement of the Dorado development Front End Engineering and Design ("FEED") activities.

The recent completion of the farm-out of the Buffalo project to Advance Energy Plc ("Advance Energy") is a significant achievement which will see Carnarvon free carried for the Buffalo-10 well up to US\$20 million. Upon success in the Buffalo-10 well, the newly formed Joint Venture will secure development funding, with any shortfall to be funded by Advance Energy. I would like to again congratulate Advance Energy on their capital raise and welcome them to this exciting project.

Preparation towards the drilling of the Buffalo-10 well is well underway. During the quarter, Carnarvon appointed Petrofac to provide drilling management services for the Buffalo-10 well. Petrofac bring a great deal of experience and are working closely with our team to start the well later this year.

Adding to our Buffalo drilling activity, I was pleased to announce that the Noble Tom Prosser rig is secured to drill the high impact Pavo-1 and Apus-1 exploration wells.

Given the potential size of the targets and the development benefits alongside Dorado, Apus and Pavo are very attractive and meaningful opportunities for Carnarvon. Pavo is expected to be drilled immediately before Apus, commencing late 2021 and early 2022 respectively.

With regards to the Dorado development, work progressed during the quarter on pre-FEED for the Wellhead Platform ("WHP") and the Floating Production Storage and Offloading ("FPSO") vessel, to ensure that the project will enter FEED in the coming quarter. The timing of the upcoming FEED entry will allow for a targeted Final Investment Decision ("FID") in the first half of 2022.

At the end of the quarter, Carnarvon maintained its strong balance sheet with a cash position of \$103m. The Buffalo farm-out and well cost carry allows Carnarvon to focus its balance sheet on the Dorado development and nearby highly prospective exploration opportunities.

With three high impact exploration wells to commence in the coming months, alongside the continued progression of the Dorado development, Carnarvon is in an excellent position to test and progress significant value opportunities in 2021 and beyond.



#### Buffalo Project Timor-Leste TL-SO-T-19-14

(Carnaryon 100% and Operator)

Carnarvon achieved a number of key milestones towards the drilling of the Buffalo-10 well. Subject to Joint Venture and government approvals and the availability of a suitable rig, drilling is expected to commence in the second half of 2021. The Buffalo-10 well is an important step towards the redevelopment of the Buffalo oil field.

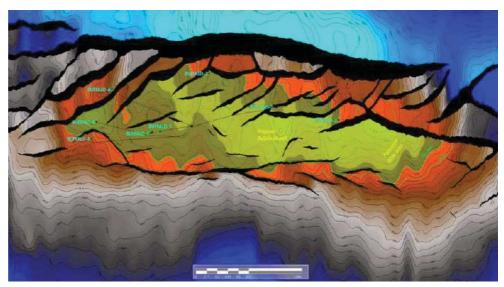
Following the end of the quarter, the Buffalo project achieved a significant funding boost through the completion of the farm-out agreement to Advance Energy.

Advance Energy has completed the farm-in and has raised the capital to fund the drilling of the Buffalo-10 well up to US\$20 million on a free carry basis. This means the drilling will be at no cost to Carnarvon unless the well costs exceed US\$20 million. Carnarvon will also retain operatorship of the project with a 50% equity level (post farm-out completion).

Following a successful result in the Buffalo-10 well, the newly formed Joint Venture will acquire development funding from third party lenders and any additional funding requirements (above that provided by third party lenders) will be provided by Advance as an interest free loan.

This transaction is an important element of Carnarvon's strategic objectives as the Company prudently manages its balance sheet in order to both drill the Buffalo-10 well and progress the development of the Dorado project.

Carnarvon has also made considerable progress in planning for drilling the Buffalo-10 well. Following a thorough process,



Buffalo depth structure map at top Elang formation, with the lightest green colour shading highlighting the areas of attic oil interpreted above the previous known accumulation.

Carnarvon has appointed Petrofac to provide drilling management services for the Buffalo-10 well to complement its operational capabilities.

This work, which is well under way, includes completion of detailed well design, procurement of long lead items and contracting the drilling rig and associated services, including the shore base location.

The Buffalo-10 well is being designed to target attic oil in the field. The original field's development was impacted by lower quality seismic data which likely resulted in sub optimal well positioning. Carnarvon has utilised modern Full Waveform Inversion (FWI) technology which supported the interpretation of a significant attic oil accumulation remaining after the original development.

Carnarvon also continued its studies to assess the Triassic prospectivity of the source rock potential within and around the Buffalo project. The primary purpose of the studies is to refine the follow-up potential to the Buffalo oil field re-development project which includes the untested and highly prospective Buffalo Deep prospect which is a Triassic prospect located below the Buffalo oil field.

The comprehensive geochemistry study aims to provide identification of an active Triassic petroleum system and to de-risk the charge concepts for the Triassic targets within the Buffalo PSC area.

### Dorado Development WA-437-P

(Carnarvon 20%; Santos is the Operator)

Dorado is a world-class oil development located in shallow water offshore Western Australia. The phased development is targeting around 150 million barrels of liquids (gross) prior to a later stage of gas export.

Work progressed during the quarter on pre-FEED for the Wellhead Platform ("WHP") and the Floating Production Storage and Offloading ("FPSO") vessel, to ensure that the project will enter FEED in the coming quarter.

FEED entry in the upcoming quarter will allow for targeted Final Investment Decision ("FID") in the first half of 2022.

During the quarter engagement with proposed FPSO contractors was



ongoing with bridging engineering work to refine the proposed designs.

In line with the proposed drilling for Pavo-1 and Apus-1, scheduled to commence later in 2021, further work was undertaken to ensure the Joint Venture retains optionality to allow for additional low-cost liquids tie-backs to Dorado in the success case.

## Bedout Exploration WA-435.6.7&8-P

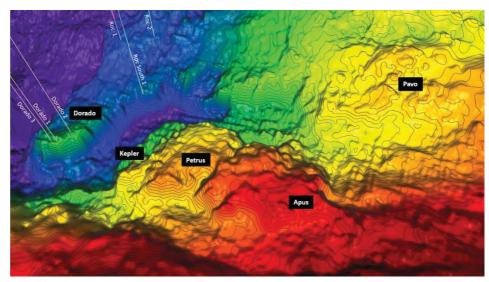
(Carnarvon 20%-30%; Santos is the Operator)

During the quarter, Carnarvon and the Bedout Joint Venture secured the Noble Tom Prosser drilling rig to drill the Pavo-1 and Apus-1 exploration wells with the drilling program expected to commence in late 2021.

Both prospects have the potential to materially increase the aggregate resource for the Dorado field. Resources capable of being tied back to existing infrastructure significantly enhanced provide economic outcomes, minimize investment additional capital requirements and shorten time periods to first production from the tie back fields.

Following the interpretation work by Carnarvon, the Pavo and Apus prospects are estimated to contain 101 million and 307 million barrels of oil equivalent respectively (Pmean, Gross) (refer to ASX announcements on 3 March 2021).

The Pavo-1 well is scheduled to commence first, targeting a structure which is situated just over 40 kilometres from the Dorado field. Current analysis suggests that the primary target consists of a single reservoir layer. Pavo also has a shallower target depth and a closer proximity to the Triassic shoreline than Dorado, which could result in



Map of top Caley/TR15 with well locations and significant prospects in the Bedout Sub-basin

even better reservoir quality than at Dorado, as demonstrated by the nearby Keraudren-1 well.

The Apus-1 well will immediately follow the Pavo-1 well. The Apus prospect, which is around 30 kilometres from the Dorado field, is in a water depth of 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.

The primary reservoirs of Pavo and Apus are similar to those that have proven successful in the Dorado field, including the prolific Caley reservoir. There is also further prospectivity upside interpreted in the previously untested Dumont member at the Apus location.

During the quarter, Carnarvon continued its assessment of the numerous additional prospects within the Company's considerable acreage across the prolific Bedout Sub-basin. Carnarvon continues to assess these prospects and the work to date has given Carnarvon strong encouragement that the broader

region under permit possesses a very large number of additional prospects and leads. The two new 3D seismic surveys in this basin in 2021 are expected to further enhance this technical work.

## Condor & Eagle Projects AC/P62 & AC/P63

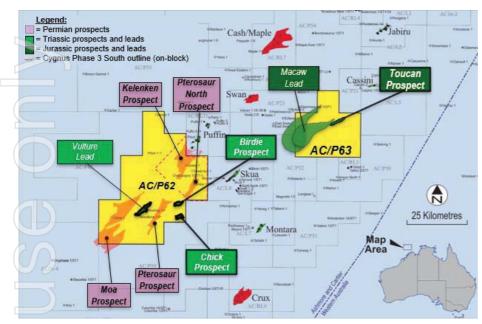
(Carnarvon 100% and operator)

During the quarter, Carnarvon received and completed its interpretation of the third phase of the Cygnus 3D data.

Carnarvon's work in the Vulcan Subbasin has been greatly enhanced by the utilisation of the high-quality Cygnus 3D survey which was completed by Polarcus in 2018. The third phase of the Cygnus data covers a 317 km² region of the AC/P62 permit which has historically only been covered by 2D seismic.

The technical work so far has shown the possibilities for Cretaceous, Jurassic, Triassic and Permian fault blocks in this area which the new 3D seismic has illuminated. At these levels there is also strong potential for these targets to be oil charged.

To date, the most significant target is the Moa prospect. Moa is a late Permian carbonate reef oil prospect



Map of significant prospects and leads across Carnarvon's AC/P62 (Condor) and AC/P63 (Eagle) permits

of 132 km<sup>2</sup> and is associated with at least four other leads. Moa is a new play type for the North West Shelf, offering great potential for a large resource.

Within the AC/P63 permit, Carnarvon is currently in the process of reprocessing the early Onnia 3D data over the small area within the permit which does not contain the modern Cygnus 3D Seismic. This improved data will then be merged with the Cygnus data.

Once the Onnia and Cygnus have been merged, Carnarvon will have a more seamless data set. This will allow for greater inference on the reservoir within the project.

The standout target, identified to date on the modern 3D seismic in the AC/P63 permit, is the Toucan prospect in the Jurassic Plover formation. The Jurassic reservoir has been successful along the North West Shelf of Australia and typically features very good porosities and permeabilities within the Vulcan Sub-basin.

Going forward Carnarvon is planning to perform an inversion of the seismic data over AC/P63. The intention of the inversion is to better understand the reservoir distribution and porosities of the targets identified within the project.

The AC/P62 and AC/P63 permits cover an area of 2,100 km² in the world class oil and gas Vulcan Subbasin featuring the Montara, Jabiru, Skua and Challis oil fields. The basin is currently experiencing a renaissance which is being driven by new 3D seismic data.

Carnarvon is currently seeking expressions of interest from potential partners to further these exciting projects.

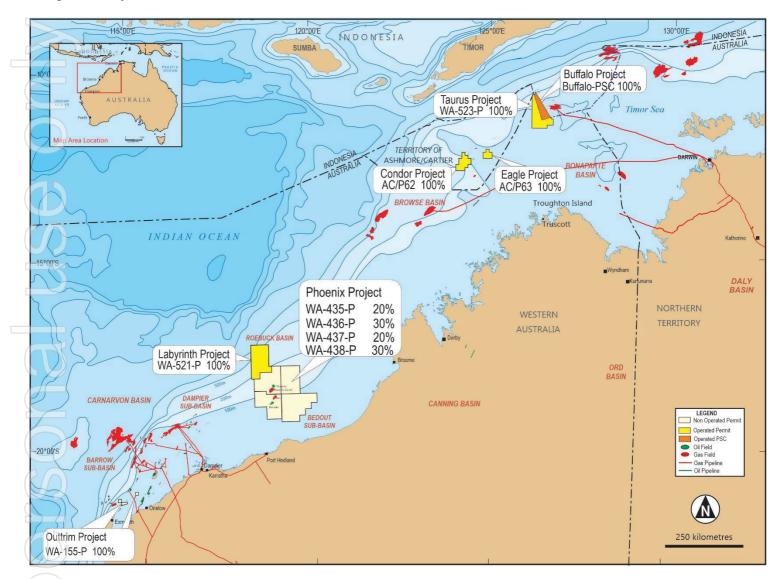


#### Financial Analysis of selected items within Appendix 5B

Appendix 5B reference	ASX description reference	Carnarvon commentary
1.2 (a)	Exploration and evaluation costs expensed	These costs pertain to work undertaken on projects that are not applicable to an owned permit interest. Typically, these costs relate to regional geological assessments undertaken by Carnarvon's technical team which includes annual exploration software and license costs.
1.2(e)	Administration and corporate costs	This item includes costs for and associated with operating the Company's office, ASX listing fees, insurances, software licences, making corporate presentations and travel.
	Interest received	Carnarvon holds a significant portion of its cash in term deposits which generate interest income during the year. Interest is recorded in the Appendix 5B when received, namely when term deposits mature. Accordingly, the amount varies each quarter based on the interest rate, the amount on term deposit and the timing of the maturity of the term deposits.
1.7	Government grants and tax incentives	Carnarvon received a cash refundable Research and Development ("R&D") tax offsets from the Australian Tax Office during the quarter for the 2020 income tax year. The refund was connected to R&D conducted during the Keraudren 3D seismic acquisition.
2.1 (d)	Exploration and evaluation costs capitalised	During the quarter, Carnarvon incurred a net outflow of A\$2.8 million on exploration and evaluation activities which primarily related to Dorado pre-FEED workflows and Buffalo well planning.
3.9	Other financing activities	The costs relate to the leasing of the Company's head office are now classified as financing activities under new accounting standards. Under these new standards, leases are recognised on the Company's balance sheet both as a financial liability and a corresponding lease asset. The monthly office lease payments, as a result, are classified as financing activity outflows.
4,5	Effect of movement in exchange rates	A decline in 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\$0.06 million.
		The Company's United States Dollar ("USD") holdings at the end of the quarter were US\$9.8 million and its Australian Dollar ("AUD") holdings were A\$89.8 million. Carnarvon holds a balance between USD and AUD as a natural hedge to committed future expenditures denominated in both USD and AUD. The retention of US dollars influences Carnarvon's reported cash holdings due to AUD / USD exchange rates at each reporting period end.
6.1	Aggregate amount of payments to related parties and their associates	These costs pertain to payments to Directors, most particularly remuneration for the Managing Director and fees for the Company's Non-Executive Directors.
8.0	Future operating activities	For the upcoming quarter, the Company has forecasted A\$3.9-\$4.1 million in Dorado FEED expenditure, A\$2.8-\$3.0 million in costs relating to acquisition of the Archer and Keraudren 3D seismic and A\$1.0-\$1.2 million in corporate costs.



#### **Project Map**



#### **Project Table**

Project	Permit(s)	Operator	Interest held	Interest Change Q/Q
Phoenix	WA-435-P	Santos	20%	-
Phoenix	WA-436-P	Santos	30%	-
Phoenix	WA-437-P	Santos	20%	-
Phoenix	WA-438-P	Santos	30%	-
Buffalo	TL-SO-T 19-14	Carnarvon Petroleum	100%	-
Taurus	WA-523-P	Carnarvon Petroleum	100%	-
Labyrinth	WA-521-P	Carnarvon Petroleum	100%	-
Condor	AC/P62	Carnarvon Petroleum	100%	-
Eagle	AC/P63	Carnarvon Petroleum	100%	-
Outtrim	WA-155-P	Carnarvon Petroleum	100%	-



Acronym	Definition
Bopd	Barrels of oil per day
Bbls	Barrels of oil
CVN	Carnarvon Petroleum Limited
JV	Joint Venture
Km	Kilometres
Km²	Square kilometres
m	Millions
Qtr	Quarter
0/0	Quarter on Quarter
Fcf	Trillion cubic feet (gas)
2D \	Two dimension seismic data
-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 7 February 2018, 30 June 2020 and 17 September 2020 (Reference: CVN ASX releases of at 7 February 2018, 27 August 2020 and 17 September 2020). 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, 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 Carnaryon 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.

#### **Appendix 5B**

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

**CARNARVON PETROLEUM LIMITED** 

ABN Quarter ended ("current quarter")

60 002 688 851 31 MARCH 2021

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(151)	(980)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(262)	(703)
	(e) administration and corporate costs	(228)	(1,699)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	78	424
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	286	286
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(277)	(2,672)

2.	Ca	sh flows from investing activities		
2.1	Pay	yments to acquire or for:		
	(a)	entities	-	-
	(b)	tenements	-	-
	(c)	property, plant and equipment	(22)	(101)
	(d)	exploration & evaluation	(2,824)	(7,126)
	(e)	investments	-	-
	(f)	other non-current assets	-	-

ASX Listing Rules Appendix 5B (17/07/20)

Page 1

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(2,846)	(7,227)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	594
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	(74)	(183)
3.10	Net cash from / (used in) financing activities	(74)	411

4.	Net increase / (decrease) in cash and cash equivalents for the period	Current quarter \$A'000	Year to date (9 months) \$A'000
4.1	Cash and cash equivalents at beginning of period	105,763	113,632
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(277)	(2,672)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,846)	(7,227)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(74)	411

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	59	(1,519)
4.6	Cash and cash equivalents at end of period	102,625	102,625

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	24,042	20,047
5.2	Call deposits	78,583	85,716
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	102,625	105,763

related parties of the entity and their	Current quarter \$A'000
unt of payments to related parties and their uded in item 1	276
unt of payments to related parties and their uded in item 2	-
ıded in	

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	Financing facilities  Note: the term "facility" includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	ıarter end	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(277)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(2,846)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(3,123)
8.4	Cash and cash equivalents at quarter end (item 4.6)	102,625
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	102,625
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	32.9

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: n/a

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: n/a

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: n/a

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

#### Compliance statement

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 22 April 2021

Authorised by: By the Board

(Name of body or officer authorising release – see note 4)

#### **Notes**

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.