

30 July 2020

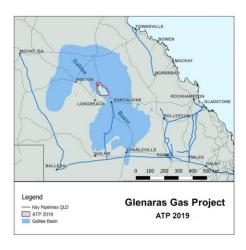
## Highlights

- The recently drilled Glenaras 17A monitoring well has provided a significant breakthrough in understanding the production characteristics within the Betts Creek coal sequence at the Glenaras Gas Project.
- Glenaras 17A has confirmed that the entire section from the R1 to the R7 coal is acting as one contiguous system and is being depleted by the existing multi-lateral pilot (Pilot).
- The Pilot continues to produce strongly and has achieved a significant pressure sink in the Pilot area, which is approximately 85% progressed towards the Company's goal of critical desorption.
- Given the Pilot is depleting the entire coal section, clear potential exists to realise a much larger initial 2P Reserves target in the order of 800 - 1,000 PJ.
- Schlumberger have made substantial progress on the reservoir simulation modelling to analyse the current production and pressure performance of the Pilot and to optimise future development options.
- ❖ In parallel the Company is rapidly progressing with drilling rig contractors, site preparation and and long-lead procurement for an imminent drilling campaign within the Pilot area.
- ❖ The remediation of the old legacy pilot wells at Glenaras and Rodney Creek is now complete.
- Strong balance sheet with current cash position of \$22.6 million as at 30 July 2020, inclusive of an R&D tax offset claim received 13 July 2020.



## Glenaras Gas Project (ATP 2019) - GLL 100%

Galilee Energy Limited (ASX:GLL) ("Galilee") is pleased to provide an update on the Glenaras Pilot in the Galilee Basin in Queensland (Figure 1).



The Pilot is part of the Glenaras Gas Project ("Project") located in ATP 2019, which is 100% owned and operated by Galilee. The Permit covers an area of approximately 4000 km<sup>2</sup>.

The Project has one of the largest contingent gas resources with the potential to supply the eastern Australian market which AEMO forecasts will need supply from currently booked Contingent Resources from the early 2020's. The independently derived and certified Contingent Resource within the Betts Creek coals are a 1C of 308 PJ, a 2C of 2,508 PJ and a 3C of 5,314 PJ. The Company's primary focus is on converting these Contingent Resources to Reserves.

Figure 1. Glenaras Gas Project.

## **Outcomes from Glenaras 17A**

The Glenaras 17A monitoring well (Figure 2) has provided significant new positive information on the reservoir characteristics and vertical connectivity within the Betts Creek coal sequence. Critically, despite the variable reservoir quality of the coals, sands and siltstones within the Betts Creek section, preliminary analysis of the data from Glenaras 17A indicates that the entire Betts Creek i.e. the R1 to R7 coal sequence (and interspersed sandstones) is being depleted almost uniformly by the Pilot. As such, the Pilot, which is completed and producing from the R3 coal only, is successfully draining from the entire Betts Creek sequence, most materially in the host coal, but also demonstrably in each of the other seams tested. Importantly, data obtained from Glenaras 17A indicates that the Betts Creek coal sequence is isolated from the significant aquifer systems, particularly the overlying Hutton sandstone and Great Artesian Basin.

The monitoring well results have some very important and positive implications. Firstly, this vertical connectivity helps to explain the continued strong water production rates and pressure support observed in the R3 coal at the Pilot. The vertical connectivity is allowing other layers within the section (from the R1 through to the R7) to contribute and provide crossflow support (Figure 3). This is the key reason why the Pilot is taking longer to achieve critical desorption in the timeframe expected by the Company. It also helps explain the performance of some of the legacy well pilots nearby. However, notwithstanding this very large crossflow, the existing lateral wells have achieved extraordinary success in significantly reducing the reservoir pressure in the full section of the Pilot area by a material amount in a relatively short period of time. The Pilot continues to perform strongly with all five lateral wells producing at maximum drawdown. No further pressure surveys have been conducted on the lateral wells. The most recent data, conducted at the time of the Glenaras 17A drilling, indicated that the Pilot has created a large pressure sink in the area which is, at its centre, approximately 700 psi and only ~100 psi above critical desorption pressure.



Secondly, the identification of this strong vertical connectivity within the full Betts Creek section, which appears to be widespread, has important benefits for future drilling and field development planning. As previously advised by the Company, the current Pilot was an initial step to accelerate first Reserves booking and any future pilots and future field development would most likely utilise vertical wells. The fact that there is such strong natural vertical connection within the sequence now, provides strong support that any future drilling, including any additional drilling within the Pilot area to accelerate results, will most likely be conducted using vertical wells completed over the entire Betts Creek section. This both simplifies and reduces the capital costs of any future drilling activities. It is more efficient to drain all layers of the Betts Creek section via vertical wells than to use more complex lateral wells draining from a single layer. That being said, the Pilot has been very effective, and this is due to the sheer volume of water extracted by virtue of the productivity of lateral wells, which has been instrumental in achieving the significant drawdown we have observed in the Pilot area to date.

Finally, and most importantly, the Glenaras 17A well has clearly demonstrated drawdown and depletion of the full section of coal within the Betts Creek and not just within the R3 seam. Therefore, a successful pilot at this location will be targeting a much larger Reserves booking given that all coal seams are being targeted. While it is expected that additional vertical well drilling will likely be required to achieve success, there is now the clear potential to access additional gas Reserves, increasing the near-term target 2P Reserve booking closer to 800 - 1,000 PJ.

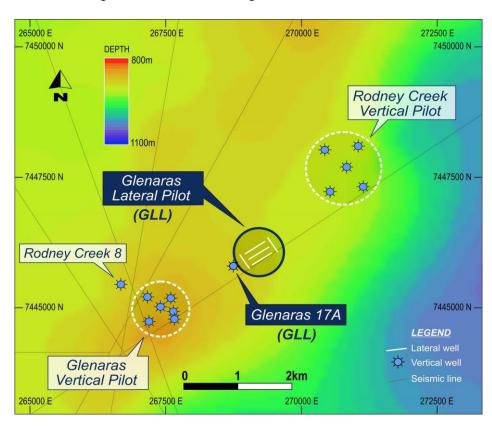


Figure 2. – Glenaras Location Map



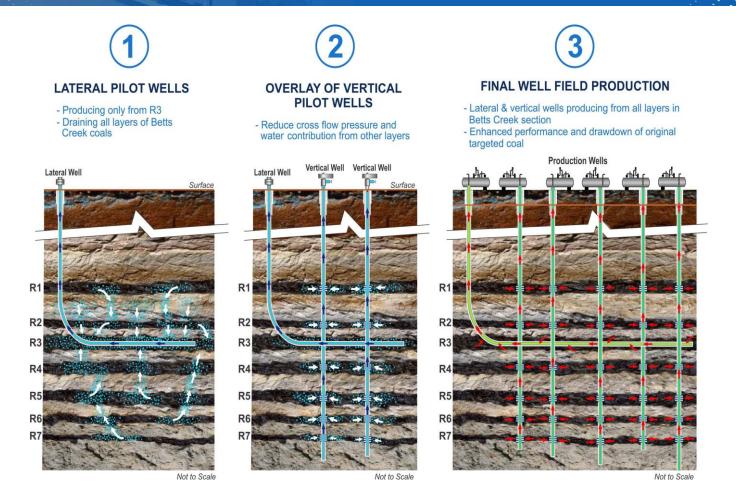


Figure 3. – Glenaras Pilot Subsurface Schematic.

#### **Schlumberger Reservoir Simulation Modelling**

As previously advised to the market, Galilee has engaged Schlumberger to perform a reservoir simulation study on the Glenaras Gas Project area. The work consists of a detailed 3-D reservoir modelling study to history match both legacy vertical pilots in the area along with data acquired from the more recent lateral well Pilot. The Company believes there is now sufficient production and pressure data to help define the reservoir behaviour more accurately.

This modelling work aims to history match the production and pressure data from all three pilots. The history matched model will then be used to forecast the future performance of the Pilot and assess the forward work programme by refining the drilling design and number of wells required to reach critical desorption within the Pilot area. The model can then also be used to determine field development strategies and assist with long-term economic modelling of the project. This work has taken longer than initially expected due to a combination of modelling complexity and COVID-19 related staffing issues. The history matching phase is nearing completion with results expected within the next few weeks.



## **Next Steps**

A full and comprehensive update on the results of the Schlumberger reservoir modelling and the resultant next steps and timeline will be provided to the market once the modelling results are complete. As previously reported, the Company is firmly of the view that the way forward will likely involve supplementing the existing Pilot with a number of vertical wells in a configuration over and within the current Pilot.

To this end the Company has moved rapidly in parallel with the modelling to prepare for a drilling, completion and connection programme as foreshadowed above. A significant amount of work has been carried out on potential well design, with the drilling rig and service company tender selection process already complete and contracting at an advanced stage. Several long lead items including downhole pumps have been purchased to facilitate acceleration of a drilling programme whilst at the same time providing optionality as additional spares for the current Pilot wells. A workover rig has already been sourced and is stacked on site, surface facilities design work is also well underway.

A detailed summary of any future drilling programme including the number and type of wells and the anticipated timeline will be provided to the market as soon as possible following completion of the Schlumberger modelling.

### **Legacy Well Remediation**

Within the Glenaras Gas Project area there are two legacy vertical pilots, the Rodney Creek and Glenaras five spot vertical well pilots. The new Glenaras multi-lateral pilot is positioned between these two legacy pilots. Galilee worked with several service companies to design a system to completely seal up the induced fractures in these old legacy fields and inhibit any potential crossflow in these wellbores. This work is now complete with all well completion equipment removed and the injection seal-off work successfully treated. The Pilot performance is being monitored to observe any impacts from this fracture seal-off programme.

#### **Glenaras Water Management**

Significant work has progressed on water management during the quarter. Galilee has developed a management plan to use produced water for irrigation purposes, securing approvals for an area of 118 hectares on which to conduct the irrigation activities.

The initial development is under construction (Figure 4) and will utilise a 33 hectare centre pivot irrigation system, targeting commissioning of the system in September 2020. A variety of crops will be grown, including forage sorghum and barley with the crops to be utilised by a local landholder to assist in livestock management, particularly beneficial during the prolonged drought periods experienced in this area. This project is easily scaleable with additional pivots able to be installed within 2 to 3 months.

Additional work is progressing on the design, work scope, and regulatory approvals for alternate water management options. These initiatives will secure continuity of well water production for the Glenaras Gas Project through to the end of 2021 as well as providing water solutions for full scale field development.





Figure 4. Installation of the liner on the irrigation dam.



**Figure 5.** Example of an operational pivot irrigation system.



## Kumbarilla Project (ATP 2043) - GLL 100%

The exploration program at Kumbarilla is progressing well, targeting the significant conventional oil and gas potential in the permit. The reprocessing of over 675km of 2D seismic in and around Kumbarilla has provided high-quality imaging of the subsurface structural and stratigraphic architecture along the regionally prominent Moonie-Goondiwindi Fault System (Figure 6), which traverses through a large portion of the permit and hosts the nearby Moonie oil field. Mapping of these new data has identified several prospective leads at both the Permian and Precipice Sandstone reservoir levels. Future technical studies will focus on maturing these leads to drillable status and likely require the acquisition of additional seismic.

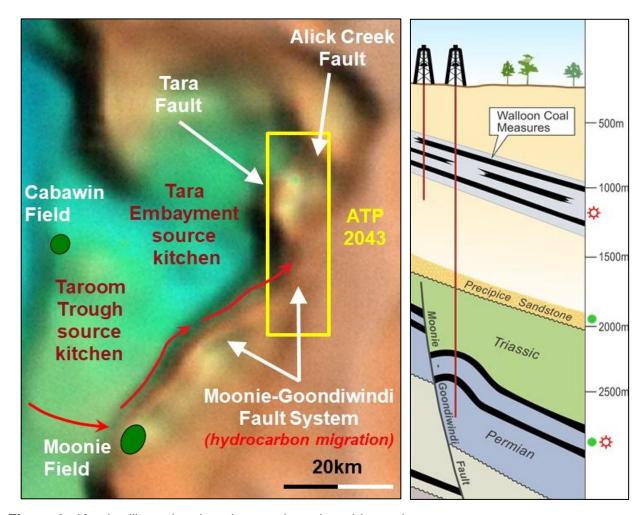


Figure 6. Kumbarilla regional geology and stratigraphic section.

Discussions are at an advanced stage with an adjacent Operator with respect to executing a subsurface data exchange between the two parties. The results of which will provide additional technical insights to Galilee regarding the Walloon Subgroup Contingent Resource base in ATP 2043 and in addition will assist with future exploration activities.



## Springsure Project (ATP 2050) - GLL 100%

Initial exploration work at the Springsure Project (Figure 7) is progressing with the reprocessing of over 700km of existing 2D seismic in and around the Springsure area. The objective of this work is to improve the geological understanding of the conventional reservoir units and coal seam gas formations to support planning for future drilling.

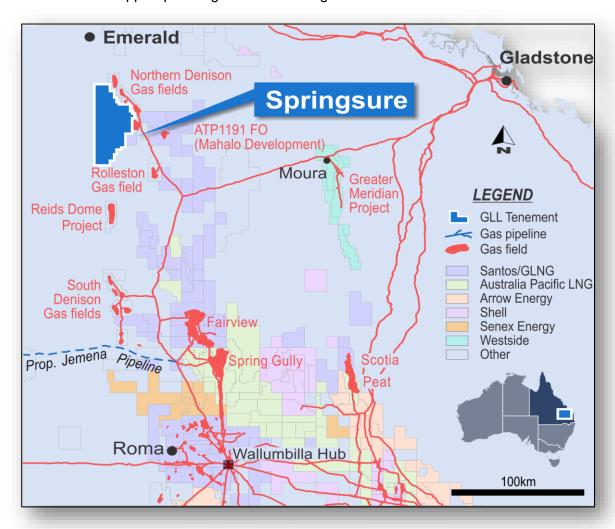


Figure 7. Springsure Project location.

The Springsure Gas Project is well positioned, providing multiple potential pathways into the eastern Australian markets including Jemena's proposed Galilee Gas Pipeline. This proposed pipeline provides an opportunity for Galilee to link two of its key assets, the Springsure Gas Project and the Glenaras Gas Project (ATP 2019) into the eastern Australia markets.



#### Jemena Update

Jemena continues to advance the planning of its Galilee Gas Pipeline which would run from the Glenaras Gas Project to Jemena's Queensland Gas Pipeline. Ongoing engagement with landholders and findings from initial constructability and ecological surveys has enabled Jemena to be well advanced in its route development. Jemena has already passed several significant milestones for the Galilee Gas Pipeline route (Figure 8) which connects the Glenaras Gas Project to the east coast gas market including the formal lodgement of the Voluntary Environmental Impact Statement (EIS) Application and EPBC Act referral with the relevant authorities.

Following successful Pilot results, Jemena is poised to submit a proposed Terms of Reference for the Galilee Gas Pipeline EIS. This milestone is an important step to provide a clear pathway to the east coast gas market for the Glenaras Gas Project.

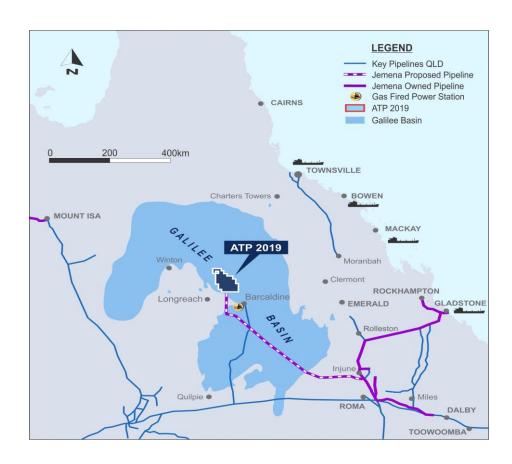


Figure 8. Proposed Galilee Gas Pipeline.



#### **Corporate**

The cash flow for the Quarter is presented in the accompanying Appendix 5B (quarterly Cashflow Report). The Company continues to maintain a very strong cash and receivables position as at 30 June 2020 of \$18.8 million, with no debt. Post the end of the quarter, the sum of \$3.8 million was received on 13 July 2020 with respect to an R&D tax offset claim.

During the period, the Company spent \$7.7 million on exploration activities, primarily on the Kumbarilla drilling programme, the ATP 2019 legacy well remediation programme and Glenaras 17A drilling, the results of which are summarized in this quarterly report and the March quarterly report with respect to Kumbarilla drilling.

Galilee's accompanying Appendix 5B includes an amount in item 6.1 which constitutes non-executive directors' fees paid for the quarter.

## **Petroleum Tenements Held**

Permit	Location	Interest Held Previous Quarter	Interest Held Current Quarter
ATP 2019	Galilee Basin (Qld)	100%	100%
ATP 2043	Surat Basin (Qld)	100%	100%
ATP 2050	Bowen Basin (Qld)	100%	100%

#### Table 1

#### For further information contact:

Peter Lansom Managing Director Galilee Energy Limited +61 (0) 7 3177 9970 ACN:064 957 419

The details of Contingent Resources referenced throughout this Quarterly Activities report in respect to ATP 2019 were announced to the market on 1 September 2015. In accordance with Listing Rule 5.34.3, Galilee Energy confirms that it is not aware of any new information or data that materially affects the information in that market announcement reporting the details of the Contingent Resources for ATP 2019 and that all of the material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

<sup>\*</sup> Listing Rule 5.42 +



## **About Galilee**

Galilee Energy is focused on creating a mid-tier exploration and production company building on its core strengths in coal seam gas appraisal and development. Its primary area of focus is Queensland where it is appraising the Galilee Basin and exploring in the Surat and Bowen Basins whilst looking to add further high quality acreage to its portfolio.

By authority of the Board:

## **Directors**

Chairman - Ray Shorrocks

Managing Director - Peter Lansom

Non-Executive Director - Dr David King

Non-Executive Director – Stephen Kelemen

Non-Executive Director – Gordon Grieve

Rule 5.3

# **Appendix 5B**

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

ABN

Quarter ended ("current quarter")

30 June 2020

#### Consolidated statement of cash flows

		Current quarter	Year to date
1.	Cash flows related to operating activities	\$A'000	(12 months) \$A'000
1.1	Receipts from customers	ΨA 000	ΨΑ 000
1.2	Payments for:		
	(a) exploration & evaluation	(7,674)	(15,010)
	(b) development	- 1	` - ′
	(c) production	-	-
	(d) staff costs	(94)	(878)
	(e) administration and corporate costs	(381)	(1,222)
1.3	Dividends received (see note 3)	=	-
1.4	Interest received	132	276
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other - Purchase of inventory	=	-
1.9	Net cash from / (used in) operating activities	(8,017)	(16,834)
2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	(76)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-
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	-	(750)
2.4	Dividends received (see note 3)	- (04)	-
2.5	Other - Rental bonds received	(21)	100
2.6	Net cash from / (used in) investing activties	(21)	(726)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	24,865
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(762)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	- (40)
3.9	Other - Payment for principal portion of lease liabilities	29	(40)
3.10	Net cash from / (used in) financing activties	29	24,063

## Consolidated statement of cash flows

		Current quarter	Year to date
		\$A'000	(12 months) \$A'000
4.	Net increase/ (decrease) in cash and cash equivalents for the period	\$A 000	\$A 000
4.1	Cash and cash equivalents at beginning of period	26,098	11,586
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(8,017)	(16,834
4.3 4.4	Net cash from / (used in) investing activities (item 2.6 above)  Net cash from / (used in) financing activities (item 3.10 above)	(21) 29	(726 24,063
4.5	Effect of movement in exchange rates on cash held	-	24,000
4.6	Cash and cash equivalents at end of period	18,089	18,089
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	Previous quarter
5.1	Bank balances	\$ <b>A'000</b> 3,147	<b>\$A'000</b> 1,156
5.2	Call deposits	14,942	24,942
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)	18,089	26,098
			t quarter
6.	Payments to related parties of the entity and their associates		'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1		76
6.2	Aggregate amount of payments to related parties and their associates included in item 2  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	-	
	6.1 - Directors' fees.	]	
7.	Financing facilities	Total facility amount at quarter	Amount drawn at quarter end
	Note: the term "facility" includes all forms of financing arrangements available to the entity.	end	quartor on a
7.4		\$A'000	\$A'000
7.1 7.2	Loan facilities Credit standby arrangements		
7.3	Other		
7.4	Total financing facilities	-	-
7.5 7.6	Unused financing facilities available at quarter end Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing deta		
8.	Estimated cash available for future operating activities		\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)		(8,017
8.2	(Payments for exploration & evaluation classified as investing activities (item 2.1(d))		-
8.3	Total relevant outgoings (item 8.1 + item 8.2)		(8,017
8.4	Cash and cash equivalents at quarter end (item 4.6)		18,089
8.5	Unused finance facilities available at quarter end (item 7.5)		-
8.6	Total available funding (item 8.4 + item 8.5)		18,089
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)		2.3
	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:	1	
		]	
	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?		
	Anewer	1	
	Answer:		
	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:	7	

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

#### Appendix 5B

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

#### Compliance statement

1	This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule
2	This statement gives a true and fair view of the matters disclosed.
Date:	30 July 2020
Authorise	t by: The Board  (Name of body or officer authorising release – see note 4)

#### **Notes**

- 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.
- 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.
- 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.
- 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"
- 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.