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## QUARTERLY ACTIVITIES REPORT

30 September 2022

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### Highlights:

- Project has fully awarded the Spray Roaster, Reduction Furnaces, Agitators, Pumps and Civil Construction packages.
- Project activities remain on schedule with over 55% of total engineering completed, and 70% of the equipment packages tendered to the market.
- Project funding pushed back a month to save interest costs, without effecting construction timeframe.
- PFS – A Study initial results confirms preferred locations, with further work required.
- Latrobe Magnesium and Société Le Nickel have executed a binding MoU for the supply of 450,000 tonnes per annum of ferro-nickel slag for 20 years for its 100,000tpa magnesium plant as its feedstock.
- State and Federal Government support now available for the Project.

### 1. Construction Update

#### Engineering

The project is currently 20% complete overall with engineering at 55% completion. Engineering is continuing to concentrate on the completion of mechanical and electrical equipment packages, with focus now switching to the development of construction tender packages and issued for construction drawings.

Process engineering is 85% complete and entering the final phase with the mass and energy balance, process flow diagrams and equipment list finalised after incorporating vendor data from the equipment suppliers. The piping & instrumentation diagrams are being revised with vendor information to finalise for construction. The reagent and consumption list has been completed to commence procurement of operational reagents ready for commissioning.

Process inputs to vendors around equipment operation is being provided with equipment performance, duties, and interfaces progressively reviewed as vendors submit engineering data. The last remaining significant process work has started with the development of instrument datasheets to support the upcoming procurement of the instrumentation and collaboration with the process control system integrator in the coming months to implement the process control philosophy into the control system.

Mechanical engineering is 60% complete and heavily focused on the preparation of tender packages, technical evaluations, and review of vendor data. Mechanical and piping design is completing the piping and equipment modelling with the 3D model approaching 70% complete.

Mechanical has undertaken a substantial effort to review packages for scope and specification in response to the unprecedented market conditions resulting in cost increases for equipment across the industry. This has delayed the award of some packages but does not substantially impact schedule as the long lead item critical path packages, the spray roaster and reduction furnace are progressing on schedule with vendor engineering and purchase of materials for fabrication commencing.

Technical evaluations have been completed for the following equipment:

- Belt filter
- Briquetting system
- Press filters
- Materials handling circuit
- Cooling tower
- Reverse osmosis plant
- Retorts
- Thickeners
- Scrubber
- Bulk handling system
- Safety showers
- Non-metallic tanks.

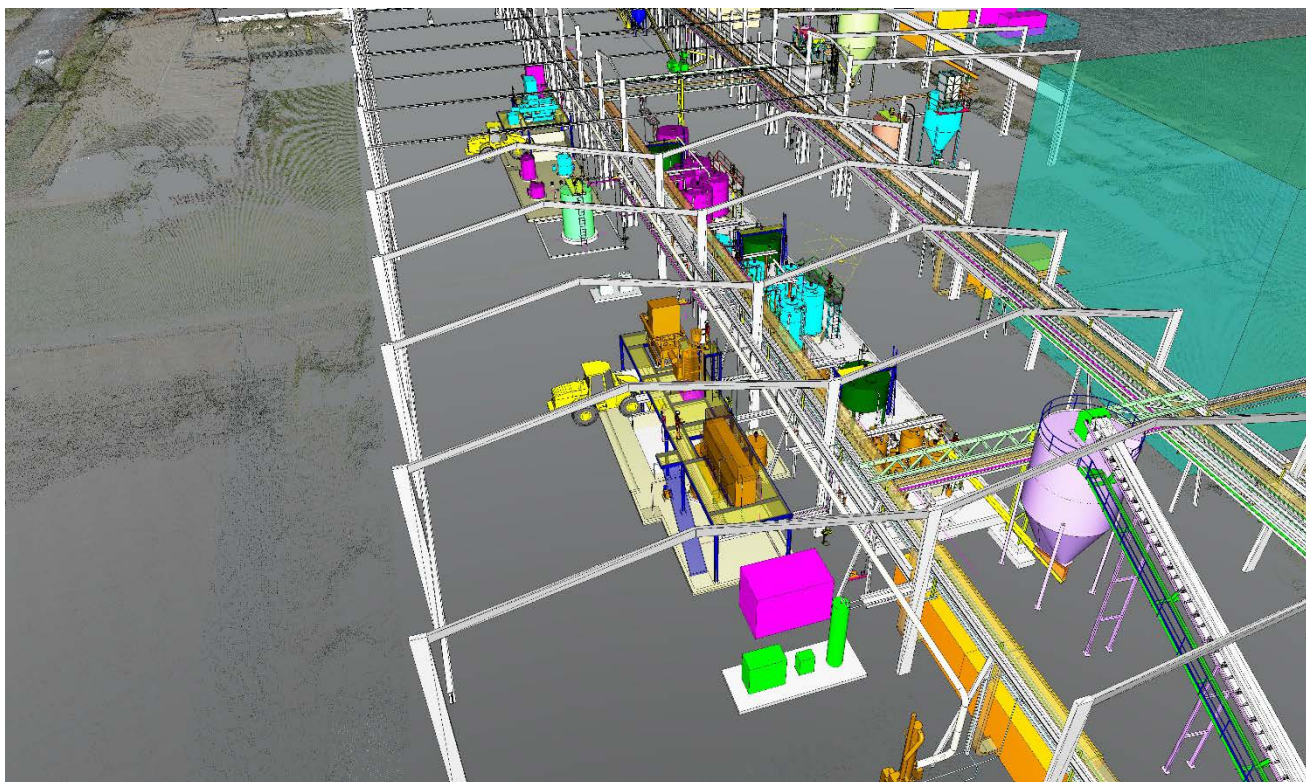
The following equipment is being prepared for tender:

- Steam boiler
- Vacuum pumps
- Fire protection system
- Crown handling
- Refinery
- Refinery off gas handling
- Control valves
- Flocculant system.

The Computational Fluid Dynamics (CFD) modelling of the reduction furnace has been completed along with the furnace design and 3D model. A Dangerous Goods consultant has been engaged to finalise the dangerous goods manifest ready for the fire engineer to complete the fire design next month.

Civil and Structural engineering is 50% complete and is focused on the completion of issue for construction drawings for the civil works package. 70% of the civil works will be issued for the first construction package covering the ash handling, leaching, impurity removal, Spray Roaster, and reduction furnace areas.

Electrical and Instrumentation engineering is 22% complete with the focus on the award of electrical equipment such as the Motor Control Centres' (MCC's) and the Process Control System (PCS) hardware and software. The upcoming works include the evaluation of tenders for the switch rooms before focusing on the preparation of the instrumentation packages for tender to the market.



## Procurement

Procurement is progressing with the full award of the Spray Roaster to Tenova (Austria) and the Reduction Furnace to Major Engineering (Victoria, Australia). Previously these contracts had only been partially awarded to ensure the packages remained on schedule, whilst terms and conditions were negotiated. Market conditions are proving very challenging in negotiation of standard industry accepted terms resulting in prolonged negotiations.

A letter of intent has been signed with Rockwell Automation for the supply of MCC's and the control system hardware and software. This allows Rockwell to ensure timely manufacturing for the required Programmable Logic Controllers (PLC's), which are experiencing unprecedented manufacturing challenges due to the impact of COVID. This will allow the schedule to remain on track whilst contract terms are negotiated.

Award of the remaining packages has been delayed longer than planned due to unprecedented conditions in the global supply market with high inflation, COVID supply chain challenges and its effect on shipping. Many of the package tenders received have been over budget, with the project team undertaking significant work to improve the cost impact. Working closely with vendors to reduce pricing in line with budget has proven successful but has delayed the award of these packages.

	Number of Equipment Packages
<b>Project Preparation</b>	9
<b>Tendered to Market &amp; Under Evaluation</b>	17
<b>Awarded</b>	5
<b>Total</b>	<b>31</b>



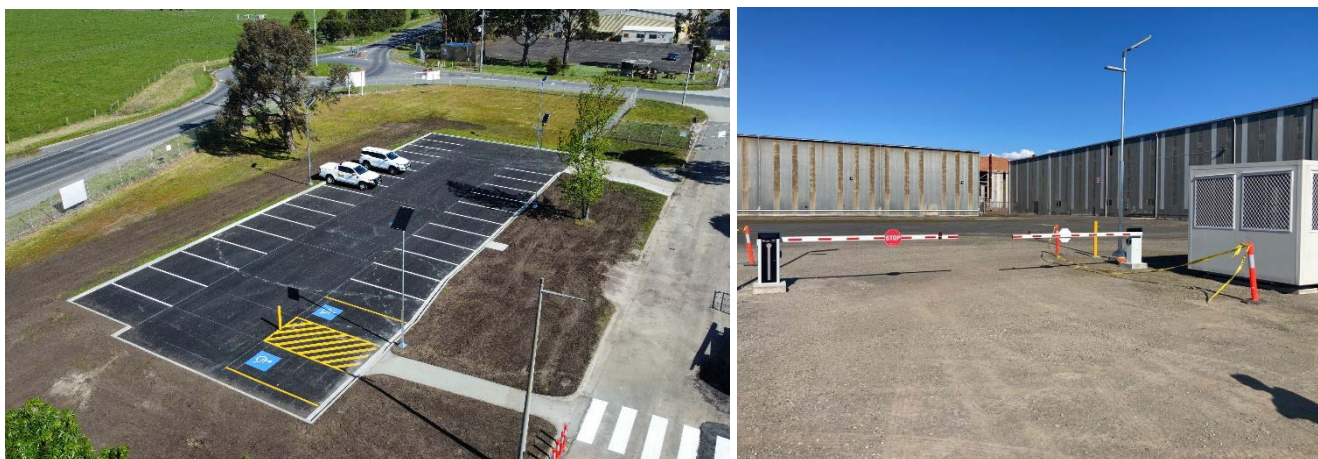
## Construction

The Project contractor Mincore has appointed their construction manager who is building the construction team and presence on site.

The first construction contract, the civil and concrete works, has been awarded to Stirloch Constructions who are mobilising to site in the first week of November. The package was tendered to eight contractors with only three choosing to submit tenders, reflecting the market conditions and the unavailability of resources. The award to a local contractor in the Latrobe Valley is reflective of LMG's desire to work with the local community and contribute to the local economy.

The development of the Structural, Mechanical, Piping and Electrical and Instrumentation (SMPEI) construction packages has commenced with award targeted for early next year, again slightly delayed due to awaiting vendor data from equipment packages.

The carpark and administration building have been completed, ready for the project team to mobilise to site to oversee the construction phase. Site security has been established with the completion of the security gatehouse and traffic management. The site is now ready for mobilisation of construction contractors.



The project schedule is currently being rebaselined to account for the delays in awarding non-critical path equipment packages but is not expected to impact the target of commissioning the process plant by mid next year, due to the strategy of focusing on awarding long lead critical path items and adjusting the resourcing level. A revised date will be issued at the next project update.

The project capital cost estimate is being updated, as planned, to establish the control budget for project execution. Considering the cost impact of inflation, oil price, labour issues and supply chain this is a timely exercise as it provides the project team excellent visibility on recent cost pressures. Based on early feedback from the market, the project team have already instigated a deep level value engineering activity to continue to optimise value and recover any project cost increases. This effort is bearing fruit but not expected to be completed for another month at which the project will provide an updated cost of completion.

## 2. Project Funding

On 24 June 2022, LMG drew down its first \$10M advance of its \$23M project finance facility. The second \$10M advance was due to be drawn by 1 September 2022. However, the Company was able to extend this draw until the end of October as it had some \$12M in the bank thereby saving a month's interest. The draw down has been able to be extended due to the delay in awarding non-critical path equipment.

### **3. PFS – A Study**

On 7 July 2022, LMG announced the commencement of a Pre-Feasibility Study (PFS) by Bechtel for its 100,000tpa magnesium plant using ferronickel slag as its feedstock.

On the 1 September 2022, the results of the PFS-A were received which compared the two potential areas for the plant being the Middle East and Malaysia. Whilst the results substantiated LMG's initial thoughts as to the preferred site, more work is required to develop both options fully.

Bechtel did not have sufficient time to evaluate a 100% renewable energy source scenario. Following these initial results, LMG has asked Bechtel to carry out this additional work.

In September 2022, LMG visited the Middle East and Malaysia with the goal of obtaining support from investors. The two countries in the Middle East who expressed an interest and support for the project were Saudi Arabia and Oman. LMG are holding further discussions with both these parties and Malaysia to determine the most appropriate location. The main discussions involve the availability of a renewable power source at the right price, land close to port, finance and tax allowances and the supply of local consumables.

Once this decision on the location has been made then the PFS – B Study will proceed. This is targeted for early next year and the delay for completion of the full PFS was due to being unable to finalise a full investment scenario for Malaysia to bring into the company's decision-making process. This is progressing well and is expected to allow LMG to decide by the end of the year to then kick off PFS-B on the selected location.

### **4. Ferro Nickel Supply Agreement**

On 12 September 2022, LMG signed a binding MoU with Société Le Nickel (SLN), for the supply of 450,000 tonnes per annum of ferro-nickel slag for 20 years for its 100,000tpa magnesium plant as its resource.

LMG will need in the order 600,000tpa of ferro nickel per annum to produce 100,000tpa of magnesium. SLN with its present port facilities can handle the loading of 450,000 tpa and it is considering expanding these facilities for its own reasons. As and when the proposed expansion is undertaken, SLN has advised LMG that they will be able to cater for an additional 150,000 tpa of ferro-nickel slag. There are some 20 plus ferro-nickel slag producers in the areas of Indonesia or Philippines.

The chemistry of the SLN ferro-nickel slag is 33%MgO, 55%SiO and 9%Fe<sub>2</sub>O<sub>3</sub>. LMG has been able to make magnesium, high grade amorphous silica, hematite, and its Supplementary Cementitious Material (SCM) from this feedstock. The feedstock has nearly twice the Magnesium Oxide (MgO) content as Yallourn brown coal fly ash. This means that LMG can process less material to achieve the same amount of magnesium when compared to fly ash. It takes ten (10) tonnes of fly ash, dolomite or magnesite to make one (1) tonne of magnesium. It only takes six (6) tonnes of ferro-nickel slag to make one (1) tonne of magnesium.

SLN's facility is one of the largest ferro nickel production plants in the world and makes 1.7m tonnes of ferro nickel slag per annum and has a slag heap of some 28m tonnes on the island of New Caledonia. Refer to the map below showing the location relative to Australia and the slag heap relative to the port. New Caledonia contains approximately 20% of the worlds nickel ore reserves, facilitating Ferronickel (and Ferronickel slag) production for decades to come.



## **5. State Government Support**

20 September 2022, LMG announced that the State Government will provide support under the Regional Jobs Fund for the development of stage 1 of its 1,000tpa magnesium production facility in Hazelwood North. LMG is investing \$39 million to establish Stage 1 which will create forty-three (43) new Full Time Equivalent (FTE) jobs.

LMG are presently completing a body of work with GHD to determine what will be the capacity of the expanded facility. LMG has announced that upon successful commissioning of the demonstration plant it plans to expand the plant to 10,000tpa of magnesium. The current production of Yallourn fly ash until it closes in 2028, is sufficient to provide feedstock for a 10,000tpa plant for 20 years. The mining of the Yallourn landfill could increase the size of the expanded plant. This next expansion will be decided by the end of 2023.

## **6. Federal Government Support**

On 21 October 2022, the Hon Madeleine King MP, Minister for Resources, confirmed an unwavering commitment to the Australian resources industry's global leadership in the critical minerals sector by announcing:

"A further \$50 million will be allocated over three years to the Critical Minerals Development Program for competitive grants to support early and mid-stage critical minerals projects. This is in addition to the \$50 million already committed to six projects across Australia and will assist accelerating the development of emerging projects across the nation."



“Together with the Government’s National Battery Strategy and Electric Vehicle Strategy, Australia’s wide range of critical minerals resource projects now have a clear framework and future vision.”

There are a range of supports to boost the development of the sector, and encourage continued innovation and research and development, including the \$1 billion Value Adding in Resources Fund, to work alongside the \$2 billion Critical Minerals Facility, as part of the Government’s National Reconstruction Facility.

LMG will be looking to secure some of its future funding for its 10,000+ tpa plant from these facilities.

## **7. Listing Rule 5.3.5**

ASX Listing Rule 5.3.5 requires quarterly activity reports to describe any payments made to related parties or their associates as disclosed in an Appendix 5B for the same quarter. LMG advises the amount of \$183,333 (rounded up \$183k in Appendix 5B at Item 6.1) being payments made to Directors or companies associated with Directors for their services as Directors’ fees.

Should you have any queries in relation to this announcement please do not hesitate to contact the CEO on his mobile 0421 234 688.



**David Paterson**  
Chief Executive Officer

28 September 2022

## **About Latrobe Magnesium**

Latrobe Magnesium is developing a magnesium production plant in Victoria's Latrobe Valley using its world- first patented extraction process. LMG intends to extract and sell magnesium metal and cementitious material from industrial fly ash, which is currently a waste stream from the Yallourn brown coal power generation.

LMG has completed a feasibility study validating its combined hydromet / thermal reduction process that extracts the metal. Construction has started on site on its initial 1,000 tonne per annum magnesium plant and production is expected by 30 June 2023. The plant will then be expanded to 10,000 tonne per annum magnesium shortly thereafter with production expected 12 months later. Further plant capacity expansion will be determined once a body of Geotech works has been carried out this year.

The plant will be in the heart of Victoria’s coal power generation precinct, providing immediate access to feedstock, infrastructure, and labour.

LMG plans to sell the refined magnesium under long-term contracts to USA and Japanese customers. Currently, Australia imports 100% of the 8,000 tonnes annually consumed. Magnesium has the best strength-to-weight ratio of all common structural metals and is increasingly used in the manufacture of car parts, laptop computers, mobile phones, and power tools.

The LMG project is at the forefront of environmental benefit – by recycling power plant waste, avoiding landfill and is a low CO<sub>2</sub> emitter. LMG adopts the principles of an industrial ecology system.

## Appendix 5B

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

Name of entity

Latrobe Magnesium Limited

ABN

55 009 173 611

Quarter ended ("current quarter")

30 September 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(312)	(312)
	(b) development		
	(c) production		
	(d) staff costs	(275)	(275)
	(e) administration and corporate costs	(667)	(667)
1.3	Dividends received (see note 3)		
1.4	Interest received	4	4
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		-
1.8	Other (provide details if material)		
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(1,250)</b>	<b>(1,250)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	(2,056)	(2,056)
	(d) exploration & evaluation		
	(e) Investment (rent bond)		
	(f) other non-current assets (patents)		



<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
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)		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(2,056)</b>	<b>(2,056)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
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	46	46
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 (payment of lease liabilities)	(13)	(13)
3.9	Other (repayment of short term loan)	517	517
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>550</b>	<b>550</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	15,247	15,247
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,250)	(1,250)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,056)	(2,056)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	550	550

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	<b>Cash and cash equivalents at end of period</b>	<b>12,491</b>	<b>12,491</b>

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	25	50
5.2	Call deposits	12,466	15,197
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>12,491</b>	<b>15,247</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1 Payments for directors' services	183
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>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.</i>		

7.	Financing facilities <i>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.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	23,000	10,000
7.2	Credit standby arrangements	-	-
7.3	Other (GST & warrant exercise)	770	-
7.4	<b>Total financing facilities</b>	<b>23,770</b>	<b>10,000</b>
7.5	<b>Unused financing facilities available at quarter end</b>		<b>13,770</b>

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

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.	
	Facility	\$23,000,000 - Secured
	Lender	RnD Funding Pty Ltd
	Interest Rate	12% pa. to 31 October 2023, and 14% pa. the remaining of the term
	Maturity Date	30 June 2027
<b>8.</b>	<b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (Item 1.9)	(1,250)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	-
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(1,250)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	12,491
8.5	Unused finance facilities available at quarter end (Item 7.5)	13,770
8.6	Total available funding (Item 8.4 + Item 8.5)	26,261
8.7	<b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	21.01

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?

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?

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?

## Compliance statement

- 1 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.

28 October 2022

Date: .....

Audit and Risk Committee

Authorised by: .....  
(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.