

30 October 2023 ASX:FYI | OTCQX:FYIRF

# FYI Resources Activity Report for the quarter ended 30 September 2023

# **Highlights**

- High purity alumina (HPA) small scale production facility (SSP) engineering study advances as per development plan
- CTE appointed to progress HPA SSP engineering workstreams
- Project optimisation continues for capex and schedule improvements
- Previous HPA pilot plant production trial product achieves excellent results for possible downstream sapphire glass production
- Broader HPA commercial qualification program continues with key end-users
- Downstream HPA growth opportunities continue to be examined by FYI
- HPA market outlook strengthens following customer outreach feedback
- MOPL appoints IHC Mining to complete scoping and detailed engineering for the Minhub rare earths project
- ESG improvement continues under Sustainalytics and United Nations Global Compact platforms

Critical minerals developer FYI Resources Ltd (ASX: FYI) ("FYI" or "Company") is pleased to release its Activities Report for the quarter ending 30 September 2023 (Quarter).

FYI is committed to developing a critical mineral focused project portfolio which includes ultrahigh quality, high purity alumina (HPA)in Western Australia and rare earths downstream processing capabilities in the Northern Territory (focusing on neodymium and praseodymium).

# **HPA Project**

# Development

FYI's innovative process flowsheet to produce ultra-high quality, HPA continued to advance during the September quarter. FYI's HPA process has been demonstrated through extensive pilot plant trials supporting the project's outstanding definitive feasibility study (DFS) results. FYI has been engaged in detailed project studies to enhance the design, efficiency and capex / opex elements to various aspects of the flowsheet as well as the engineering design of the plant. These modifications have included a simplification of the previous design in some instances and in other cases, the introduction of very effective in-house designed and developed engineered components incorporated into the flowsheet.

Areas the development team focused on during the Quarter include:

- Continued SSP engineering design refinements
- Improved flowsheet leach and precipitation production efficiencies
- Waste stream recovery and recycling circuits re-designed
- Excellent progress in HPA puck development for the sapphire boule market

Unit 2, 49 Ord Street West Perth Western Australia 6005





- FYI initiates HPA product development for energy storage market customer
- Incorporating modular construction design for planned expansion stages to commercial production
- Inquiries received for specialised HPA finished product HPA product characterisation to be further developed
- SSP and commercial facility production site permitting advanced

# Engineering

Perth-based engineering solutions company Control and Thermal Engineering (CTE) was appointed as the lead engineering services provider to the HPA SSP project for their innovative processing design solutions.

CTE's scope of works, schedule and budget is designed to address the complexity of the FYI process flowsheet design whilst incorporating unique solutions for both capex and opex improvements which were optimised from the learning outcomes from the Company's multiple pilot plant trials.

Engineering design focus of the SSP is on the efficiency of the plant to produce HPA of the quality and purity of the HPA required by customers as well as integrating product finishing to customer specifications.

The preliminary SSP engineering design was agreed to during the quarter in conjunction with the FYI technical team. Detailed development workstreams are progressing within schedule with the detailed study completion in March 2024 quarter. Workstream objectives include engineering solutions for FYI's innovative HPA flowsheet design and their incorporation into the modular expansion of the SSP into the commercial plant.

CTE's progress during the quarter included:

- Incorporating recent internally developed flowsheet improvements into design
- Optimizing plant capacities and mass balance
- Commencing early equipment sizing and selection
- Commenced selection of materials of construction and hydrometallurgical equipment
- Project schedule improvements to result in more productive project delivery as a result of workstream efficiencies

# **HPA Pilot Plant and Engineering product Trials**

Earlier in the year, the FYI technical team undertook long duration HPA product testing trials for enhanced end-product quality, purity and characteristic development. These trials commenced in the second quarter of 2023 utilising the HPA product originating from the March 2023 pilot plant run (see ASX announcement 23 March and 19 April 2023). The significance of these trials is the advanced project development and the achievement of improved HPA production efficiencies through FYI's pilot plant of materials having a purity above 99.995% Al<sub>2</sub>O<sub>3</sub>. (base material).

Engineering and development trials include:

- Ongoing puck development for the downstream sapphire boule markets
- Optimising calcining technologies for multiple end-product finishes
- Examination of bespoke HPA end-product finishes for new customer inquiries



# **HPA Customer Outreach and Engagement**

FYI continued its customer engagement and outreach activities during the Quarter. FYI has developed a product marketing strategy to define and prioritise its HPA marketing activities to its current potential key customers and to attract new off-take parties.

Applying customer insights to product development to improve FYI's end-product materials offering (HPA finishes) and to increase the value of the HPA project, FYI has maintained a focused marketing approach to addressing bespoke product solutions from various customer inquiries and their specific applications. FYI is looking to address product development further following discussions with various newly introduced groups.

### Market Outlook

FYI is focused on key HPA market segments including downstream sapphire glass and the lithium-lon battery and energy storage markets. Our engagement with customers also includes in-bound inquiries resulting from increasing product awareness. Through direct contact with these various groups, FYI has noted an increase in customer inquiry as well as indication to a strengthening HPA pricing structure – particularly for the premium quality and purity end-product segments based on discussions with off-take parties.

# Minhub Rare Earth Project Development

Following FYI announcing its intention to enter the rare earths sector via the option to purchase Minhub Operations Pty Ltd (MOPL) (see ASX announcement May 2023), the Company has committed to the development of Minhub - a Darwin based mineral sands and rare earth separation plant in joint development with project partner, Arafura Rare Earths Limited (ARU).

Under an MOU with Arafura, the Minhub rare earth project plans to process third-party mineral sands concentrate to separate the high-grade rare-earth minerals xenotime and monazite (for neodymium and praseodymium) from other valuable mineral sands products such as zircon and ilmenite.

# Development

MOPL was focused on business development and operational preparedness for the Minhub project during the Quarter.

# Engineering

IHC Mining, a Queensland based mining consultancy is undertaking the Minhub feasibility study for mineral sands separation and rare earth extraction. The study will incorporate third party feedstock assessment, development of the flowsheet design and process plan and the determination of project capex, opex and cashflows.

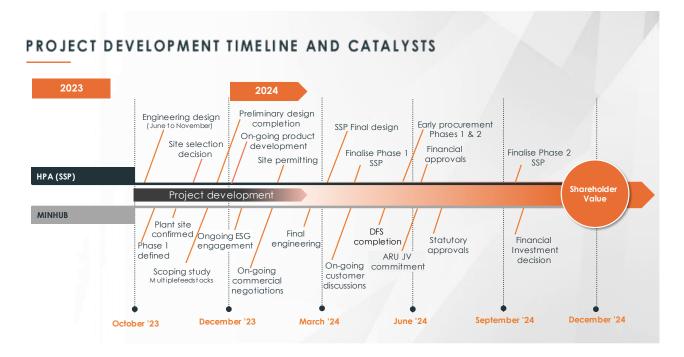
Work stream activities for the quarter included:

- Third party metallurgical test work and solution engineering
- Utilising low environmental impact and carbon footprint design
- Block flow diagrams and draft process flow diagrams for third party feedstocks
- Product and reject streams assessment for optimum processing and dispatch
- Annual production estimates for all product streams
- Logistics, product management and site storage studies



# **Development Timelines**

FYI's current work schedule for both the HPA and Minhub rare earth project are outlined below. Both schedules are heavily biased towards the individual engineering, design, statutory approvals, early works and procurement activities for both projects for 2024.



# **Industry Attraction Fund Grant**

In July, FYI was provisionally awarded a \$3 million grant through the Western Australian Government's Investment Attraction Fund (IAF). The purpose of the funding is to assist FYI in progressing the development of the Company's HPA project.

During the Quarter, negotiations continued between the WA Government and FYI regarding the project milestones for the grant funding drawdowns under the IAF program's Financial Assistance Agreement (FAA). The final FAA is currently with the Western Australian Director General for sign-off.

# **Environment Social Governance (ESG)**

ESG is a fundamental principle to FYI's business model. FYI believes the ability to manage ESG risks and opportunities is increasingly important for FYI's license to operate, the shaping of its business and the future impact on the Company's bottom line. Providing sustainable options, visibility and accountability is equally important to our potential customers as well as other stakeholders.

FYI acknowledges its responsibilities as an emerging low carbon producer for its HPA projects and its ESG obligations through adopting the UN Sustainable Development Goals (SDGs) as framework to achieve long term sustainability.



# **September Quarter ESG Activities**

FYI continues to progress on its ESG journey to be a contributor to a sustainable world by innovating responsibly, giving back to the community, and reducing environmental impact and assisting carbon reduction for generations.

Activities for the quarter included:

- Stakeholder engagement via attendance and participation in an annual Community Fundraising Evening at Cadoux (the town closet to FYI's Cadoux kaolin project area in Western Australia).
- Expanding its stakeholder communication through social media, actively soliciting feedback on community priorities, suggestions and concerns.
- Completing an assessment of its external sustainability rating services provider. Prior to finalizing this decision, the Company will approach several other ratings providers to facilitate a thorough comparison, evaluation, and benchmarking process.
- Reporting on its FY2023 sustainability efforts in FYI's Annual Report, released on September 27, 2023.
- Commencing incorporating the risk and strategy recommendations from the Task Force on Climate Related Financial Disclosures into the Company risk management framework.
- Further progress has been made in the following areas of disclosure:
  - Reporting on governance body composition
  - Integration of risks and opportunities into business processes
  - Health and safety
  - Economic contribution

In the upcoming quarter FYI will focus on:

- Enhancing stakeholder management and community consultation efforts
- Updating FYI's website to facilitate more meaningful interactions with stakeholders
- Evaluation of sustainability rating agency providers.



# **ESG Reporting and Quarterly ESG Activity Summary**

# FYI's September 2023 Quarterly ESG Progress Report







# FYI's September 2023 Quarterly ESG Comparison Report

FYI Resources  ASX:FYI  Period Comparison (Period 9 vs 10)				Progress P In progress G Gap C Completed N Not applica
© Governance	Perio	od 9 (Apr to Jun 2023)	Period 10	) (Jul to Sep 2023)
Code Description	Status	Progress (A1-A5)	Status	Progress (A1-A5)
GOVERNING PURPOSE				
GO-01-C1 Setting purpose	VERIFIED		VERIFIED	
QUALITY OF GOVERNING BODY		-		
G0-02-C1 Governance body composition	VERIFIED	PPCCC	VERIFIED	CCCP
GTAKEHOLDER ENGAGEMENT  G0-03-C1 Material issues impacting stakeholders	VERIFIED		VERIFIED	BBBB
	VERIFIED	CCCCC	VERIFIED	
GO-04-C1 Anti-corruption practices	VERIFIED	CCC	VERIFIED	CCC
GO-04-C2 Mechanisms to protect ethical behaviour	VERIFIED		VERIFIED	
RISK AND OPPORTUNITY OVERSIGHT				
GO-05-C1 Integrating risk and opportunity into business process	VERIFIED	CPCCC	VERIFIED	CCCP
👣 Planet	Perio	d 9 (Apr to Jun 2023)	Period 10	) (Jul to Sep 2023
Code Description	Status	Progress (A1-A5)	Status	Progress (A1-A5)
CLIMATE CHANGE				
PL-01-C1 GHG emissions	VERIFIED	CCP	VERIFIED	CPC
PL-01-C2 TCFD implementation	VERIFIED	CPP	VERIFIED	CPP
NATURE LOSS	VENEZED		VEDUCIED	
PL-02-C1 Land use and key biodiversity areas	VERIFIED	CNNNC	VERIFIED	CNNN
PL-03-C1 Water consumption	VERIFIED	ИИССИ	VERIFIED	CNNN
			VERMILED	
® People	Perio	d 9 (Apr to Jun 2023)	Period 10	) (Jul to Sep 2023
Code Description	Status	Progress (A1-A5)	Status	Progress (A1-A5)
DIGNITY AND EQUALITY				
PE-01-C1 Diversity and inclusion	VERIFIED	CCCCC	VERIFIED	CCCC
PE-01-C2 Pay equality	VERIFIED	PPCC	VERIFIED	CPCP
PE-01-C3 Wage level	VERIFIED	PP	VERIFIED	PP
PE-01-C4 Child, forced or compulsory labour	VERIFIED	C	VERIFIED	C
HEALTH AND WELL-BEING				
PE-02-C1 Health and safety	VERIFIED	PC	VERIFIED	CP
EKILLS FOR THE FUTURE	VEDIELED		VEDVEVED	
PE-03-C1 Training provided	VERIFIED	CC	VERIFIED	CC
Prosperity	Perio	d 9 (Apr to Jun 2023)	Period 10	) (Jul to Sep 2023
Code Description	Status	Progress (A1-A5)	Status	Progress (A1-A5)
EMPLOYMENT AND WEALTH GENERATION				
PR-01-C1 Rate of employment	VERIFIED	CC	VERIFIED	CC
PR-01-C2 Economic contribution	VERIFIED	CC	VERIFIED	CC
PR-01-C3 Financial investment contribution	VERIFIED	CC	VERIFIED	CC
NNOVATION OF BETTER PRODUCTS AND SERVICES				
PR-02-C1 Total R&D expenses	VERIFIED	C	VERIFIED	C
COMMUNITY AND SOCIAL VITALITY				
PR-03-C1 Total tax paid	VERIFIED	C	VERIFIED	



# **Quarter Activities Summary**

# Activities achieved during September quarter include:

- ✓ HPA SSP plant design determined
- ✓ HPA SSP engineering progressed
- Flowsheet tech design and development continue to be developed
- ✓ HPA product development and material finishing progressed
- ✓ Engineering feasibility studies for Minhub critical minerals production commence
- ✓ IAF grant awarded and grant funding agreement finalised
- ✓ Minhub rare earth project engineering advances
- ✓ Rare earth market development and third-party feedstock discussions
- ESG rating quarter activities progress

# Planned December quarter activities include:

- HPA SSP engineering to continue
- HPA product finishing workstreams continued for both existing and new off-takers
- Targeted HPA product marketing initiatives to continue on new inquiries
- Downstream HPA R&D studies investigated on downstream applications
- Continued HPA tech development on flowsheet backend
- Introduce Centre of Excellence strategy
- Minhub rare-earth project FS and engineering to continue
- Minhub JV to advance
- Progress ESG objectives and continual improvement (see ESG section for detail)
- Expected commencement of IAF grant funding
- Receive R&D tax offset rebate

# **Treasury**

The Company ended the September Quarter with a cash balance of ~\$7.5 million (June: \$8.1 million).

# **R & D Expenditure Rebate**

FYI expects to receive a research and development tax incentive rebate of ~\$1.2 million from the Australian Taxation Office and administered by Australian Taxation office and administered by Australian type under which eligible companies can receive cash refunds of up to 43.5% of all eligible expenditure on designated research and development projects. The rebate is for expenditure incurred on its HPA project development. This rebate amount is not included in this quarters cash balance.

## **ASX Additional Information**

ASX listing rule 5.3.1 and 5.3.2 - Exploration and evaluation cash payments (net of GST) during the quarter were approximately \$382,000. Details of exploration, evaluation and development activities during the September 2023 quarter are set out in this report.

There were no substantive mining production activities during the quarter.

ASX listing rule 5.3.5 - Appendix 5B, Section 6.1 – description of payments: During the quarter \$141,000 was paid to Directors for director fees and applicable superannuation.

### Change of Office Address

FYI advises that it has changed its principal office address to: Unit 2, 49 Ord Street West Perth WA 6005

The Company's registered office and postal address remain unchanged.



# This announcement is authorised for release by Roland Hill, Managing Director

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# Interest in Mineral Tenements as at 30 September 2023

Tenement	Location	Interest at the beginning of the quarter	Interest at the end of the quarter
E70/4673 M70/1388	Western Australia	100% 100%	100% 100%
WMM SPLs (6)	Thailand	100% (under application)	100% (under application)

# **About FYI Resources Limited**

FYI has a critical minerals project development focus and is positioning itself to be a significant producer of high purity alumina (HPA) and is entering downstream rare earths production via the acquisition of Minhub Operations Pty Ltd.

FYI has developed an innovative process design for the integrated production of high quality, high purity alumina (HPA) predominantly for electric vehicles (lithium-ion batteries), sapphire glass (LED) and other broader tech applications.

FYI applies both an ESG and economic overlay of the Company and its operations to ensure long-term sustainability and shareholder value is created via the development of the Company's innovative, high quality, ultra-pure HPA project.

HPA is increasingly becoming the primary sought-after input material for certain high-tech products, principally for its unique characteristics and chemical properties which are required for high specification products such as LED's and other sapphire glass products.

The longer-term driver for HPA, with forecasts of >17% year on year growth (GAGR)\*, is the outlook for the burgeoning electric vehicle and static energy storage markets. HPA's primary function is in its use as a separator material between the anode and cathode in batteries to increase power, functionality and safety of battery cells. As the market grows, so will the global demand for this material.

Rare earths are used in the components of many applications and devices used daily in our modern society, such as: the screens of smart phones, computers, and flat panel televisions; the motors of computer drives; batteries of hybrid and electric cars; and new generation light bulbs. The rare earths market is forecast to grow from \$7.0b revenue in 2021 to an expected revenue of over US\$15b by 2030.\*\*

<sup>\*</sup>CRU HPA industry Report 2021

<sup>\*\*</sup>P&S Intelligence: REE Market Report 2023

# **Appendix 5B**

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

Name of entity

FYI Resources Limited			
ABN	ABN Quarter ended ("current quarter")		
5 061 289 218 30 September 2023			

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(382)	(382)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(294)	(294)
	(e) administration and corporate costs	(215)	(215)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	77	77
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)	-	-
1.9	Net cash from / (used in) operating activities	(814)	(814)

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

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

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 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	-	-

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	-	-
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)	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	8,279	8,279
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(814)	(814)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

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Con	solidated 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	Cash and cash equivalents at end of period	7,465	7,465

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	965	279
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (term deposit)	6,500	8,000
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	7,465	8,279

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	141
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ nation for, such payments.	le a description of, and an

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	uarter 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.		

	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(814)
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)	(814)
8.4	Cash and cash equivalents at quarter end (item 4.6)	7,465
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	7,465
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	9.2
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) ir Otherwise, a figure for the estimated quarters of funding available must be included.	
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 cu cash flows for the time being and, if not, why not?	irrent level of net operating
	, ,	urrent level of net operating
	cash flows for the time being and, if not, why not?	e any steps, to raise further
[	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 cash to fund its operations and, if so, what are those steps.	e any steps, to raise further
	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 tak cash to fund its operations and, if so, what are those ste believe that they will be successful?	e any steps, to raise further ps and how likely does it
	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 tak cash to fund its operations and, if so, what are those ste believe that they will be successful?  Answer: N/A.  8.8.3 Does the entity expect to be able to continue its operations.	e any steps, to raise further ps and how likely does it

# **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.

Date: 30 October 2023

Authorised by: Roland Hill, Managing Director

(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.

- 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.