



TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

31 January 2022

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Directors

Michael Fry:
Chairman

Ian Prentice:
Managing Director

Jacqueline Murray:
Director

Sonu Cheema:
Director and Company Secretary

Issued Capital

203,661,390 ("TMT") Fully Paid Ordinary Shares

20,513,167 – Unquoted Options – various exercise prices and dates

3,650,000 Performance Rights

ASX Code: TMT

FRA Code: TN6



QUARTERLY ACTIVITIES REPORT & APPENDIX 5B

FOR THE QUARTER ENDING 31 DECEMBER 2021

The Board of Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to provide an update on activities for the quarter ending 31 December 2021. The Company's main focus was on progressing the Integration Study to incorporate Yarrabubba into the Murchison Technology Metals Project.

MURCHISON TECHNOLOGY METALS PROJECT

- Yarrabubba Mineral Resource estimate¹ grew by 32% to 36.6Mt @ 0.8% V₂O₅.
 - Indicated component of the MRE increased by 110% to 20.2% @ 0.9% V₂O₅.
- Global Measured and Indicated Mineral Resource¹ estimate increased to 50.2Mt @ 0.9% V₂O₅ – expected to support a project life beyond 25 years.
- Yarrabubba Integration Study progressed, assessing combination of Yarrabubba and Gabanintha as a single integrated operation².
 - 120kg of magnetic concentrate sent to kiln vendor in Pennsylvania for metallurgical testwork.
 - Open pit mine scheduling to optimise the integration of Yarrabubba and deliver an updated Ore Reserve.
- Downstream testwork on calcine from the Gabanintha pilot kiln work confirms +99.5% purity vanadium pentoxide and process efficiency improvements.
- Discussions with offtake and downstream vanadium electrolyte / VRFB partners are progressing.
 - LE System MOU expanded to support development of Australia's first fully integrated vanadium electrolyte plant.

CORPORATE

- Mr David English, an experienced project delivery professional, was appointed to the new role of Chief Operating Officer².
- Mrs Jacqueline Murray, a partner at Resource Capital Funds, was appointed as a non-executive director of the Company³.
- Tranche 2 of the \$20 million Placement (\$6.4 million) completed in November⁴.
- As at 31 December 2021, the Company had cash of \$21.7 million.

Chairman Michael Fry commented:

"The TMT team is making good progress on the MTMP Integration Study, and we look forward to the full study results as we advance the project towards our goal of being the world's next large scale primary vanadium producer."

¹ ASX Announcement 10 Nov 2021 – 110% increase to Yarrabubba Indicated Mineral Resource

² ASX Announcement 14 Dec 2021 – Murchison Technology Metals Project Integration Study Update

³ ASX Announcement 14 Oct 2021 – Board Appointment

⁴ ASX Announcement 19 Nov 2021 – Results of Meeting

During the December 2021 quarter, as part of the Murchison Technology Metals Project (**MTMP**), the Company advanced work on the Yarrabubba Project (**Yarrabubba**) Integration Study.

Yarrabubba's higher vanadium grades (than Gabanintha) and the opportunity to produce a highly sought after titanium co-product make it an attractive addition to the MTMP, with an integrated MTMP providing an opportunity to bring forward the delivery of vanadium production relative to the previously contemplated staged development strategy.

YARRABUBBA VANADIUM PROJECT

Updated Mineral Resource Estimate¹

The Mineral Resource estimate (**MRE**) for Yarrabubba was updated during the quarter incorporating the diamond and RC drilling results from infill and extensional Mineral Resource drilling programs (ASX Announcement 16 September 2021).

The Mineral Resource estimation work has delivered an upgraded Indicated and Inferred MRE for Yarrabubba of 36.6Mt at 0.8 % V₂O₅, a tonnage increase of 32% from the previously reported MRE of 27.7Mt at 0.9% V₂O₅. The updated MRE includes 19Mt of high-grade Massive magnetite mineralisation at 1.1% V₂O₅ (see Table 1 below).

Fresh ore at Yarrabubba commences from 15 to 20m below surface, with predominantly transitional material and minor oxide above these depths remaining classified as Inferred due to limited metallurgical data from these shallow zones.

Table 1: Yarrabubba MRE with classification by mineralisation type and category

Classification	Material	Mt	V ₂ O ₅ %	Fe %	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI %	P %	S %
Indicated	Massive	12.0	1.1	48.2	5.4	7.4	12.5	1.8	0.010	0.3
Indicated	Disseminated	8.1	0.6	28.5	12.0	25.2	7.3	2.4	0.018	0.2
Indicated	Massive plus disseminated	20.2	0.9	40.3	8.1	14.5	10.4	2.0	0.013	0.3
Inferred	Massive	7.0	1.1	47.4	5.7	8.3	12.3	2.1	0.010	0.3
Inferred	Disseminated	9.4	0.5	26.6	13.3	27.1	6.9	2.4	0.014	0.3
Inferred	Massive plus disseminated	16.5	0.8	35.5	10.0	19.1	9.2	2.3	0.013	0.3
Indicated plus Inferred	Massive plus disseminated	36.6	0.8	38.1	9.0	16.6	9.8	2.1	0.013	0.3

Notes: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V₂O₅ lower cut-off grade for the massive magnetite zone and using a nominal 0.4% V₂O₅ lower cut-off grade for the banded and disseminated magnetite mineralisation zones. The Mineral Resource is quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V₂O₅. Differences may occur due to rounding.

The Yarrabubba MRE has been informed by three rounds of RC drilling, and two phases of diamond drilling including geotechnical specific drilling (see ASX announcements 14th September 2017; 8th November 2018; 30th April 2020 and 16th September 2021), with the deposit drilled out to better than 100m by 50m spacing. A total of 27 diamond drill holes have been completed as part of the Mineral Resource, metallurgical and geotechnical drilling phases.

Importantly, the new drilling data collected in the 2020/21 campaigns has allowed an upgraded Mineral Resource category for much of the Massive Magnetite Zone, Footwall lens and the two Hangingwall lenses immediately up dip of the Massive Magnetite Zone. The Indicated category proportion of the Mineral Resource is now estimated to be 20.2Mt at 0.9% V₂O₅, a significant 110% increase from the previous 9.6Mt at 1.0% V₂O₅.

In addition, the close drill spacing and high level of geological control gained from the high proportion of diamond drilling has increased the grade and geological continuity and classification of additional hangingwall units, defining additional disseminated mineralisation.

A large proportion of the fresh magnetite material within the Massive Magnetite Zone, Footwall lens and the two Hangingwall lenses immediately up dip of the Massive Magnetite Zone is now categorised as Indicated.

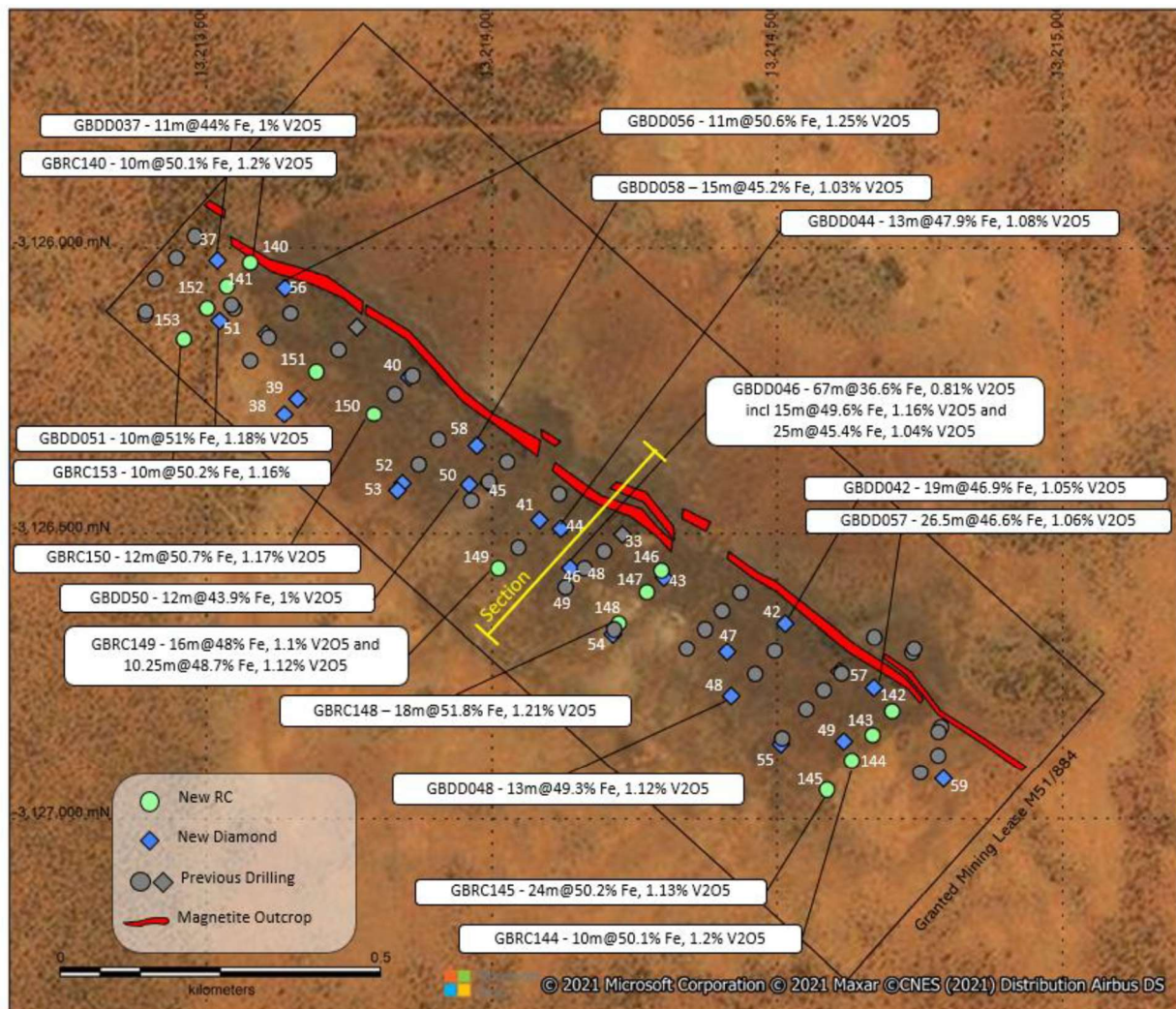


Figure 1: Drill Hole Location Plan - Yarrabubba Project¹

Yarrabubba Integration Study²

Work is progressing on the Integration Study designed to optimise the integration of Yarrabubba ore along with Gabanintha ore, into the expanded MTMP. Benefitting from the very high quality Gabanintha Definitive Feasibility Study (DFS), the Integration Study is expected to be completed in mid-2022 and will deliver an optimised mining and production model, to enable the timely progression of project financing. The MTMP Global Measured and Indicated MRE is expected to support a project life in excess of 25 years.

Importantly, the integrated MTMP provides the Company with the opportunity to bring forward the delivery of vanadium production relative to the previously contemplated staged development strategy, supporting growth in vanadium consumption and the rapidly emerging Vanadium Redox Flow Battery (VRFB) industry. There is also the opportunity to produce a highly sought after titanium co-product whilst Yarrabubba ore is being processed.

Workstreams underway during the quarter in support of the Integration Study include:

- Yarrabubba open pit mine design assessment based on the updated MRE;
- Open pit mine scheduling to optimise the sequencing of ore sources across the MTMP;
- Grind liberation testwork on Yarrabubba ore to re-orient towards a primary vanadium focused project whilst aiming to optimise both vanadium and titanium recoveries;
- A range of small scale roast-leach sighter / variability tests including varying salt dosages at different grind sizes are being conducted at a metallurgical laboratory on the main ore lenses at Yarrabubba;
- Batch kiln roast – leach testwork at the kiln vendor's testing facility in Pennsylvania (based on a total of 120kg of magnetic concentrates) to complement the pilot scale roast – leach testwork completed on the Gabanintha magnetic concentrate;
- Titanium by-product recovery work on the non-magnetics tails material generated from the production of the 120kg of magnetic concentrates;
- Optimisation of the Gabanintha DFS design work to “right size” the process plant throughput to ensure optimal production rates and operating parameters;
- Infill diamond drilling at Yarrabubba to collect a bulk sample for metallurgical testwork / product generation and to enable conversion of a portion of the MRE to the highest confidence Measured category;
- Geotechnical diamond drilling to be incorporated in future mine design and ore reserve estimation; and
- Engagement with engineering groups to progress the implementation strategy for the development of the MTMP.

Subsequent work will aim to update the Ore Reserve estimate for the MTMP based on the optimised open pit mine scheduling and metallurgical testwork, with scope to complete pilot scale testwork on the bulk sample being collected from Yarrabubba to generate a representative magnetic concentrate and sufficient non-magnetic tails to undertake titanium recovery testwork.

Yarrabubba Infill Diamond Drilling²

A program of large diameter diamond core drilling commenced at Yarrabubba in early January 2022. This program consist of ~20 infill diamond holes designed to collect a large representative bulk sample for metallurgical testwork / customer sample generation as well as upgrade a significant portion of the current Indicated MRE to the highest confidence Measured mineral resource category. A total of 9 of the planned holes have been completed to date.

The program will also include up to 5 diamond holes to provide further data on the geotechnical parameters of the proposed open pit walls at Yarrabubba. This data will be used by the mining engineers to optimise open pit design parameters as part of the final design to be incorporated into the MTMP Integration Study.

GABANINTHA VANADIUM PROJECT

The Company referred Gabanintha to the WA Environmental Protection Authority (**EPA**) in November 2018 and submitted a final draft of the Environmental Review Document (**ERD**) in March 2021. Feedback from the EPA and other decision-making authorities (**DMA's**) has been incorporated into an updated and revised ERD to address the feedback and incorporate additional data and outcomes received from ongoing work. The revised ERD is expected to be submitted for review in the coming weeks.

NORTHERN EL EXPLORATION JOINT VENTURE

The Company has an exploration joint venture (**JV**) over EL 51/1818 (**Tenement**) with CU2 (WA) Pty Ltd (**CU2**), a subsidiary of Peak Minerals Limited (ASX: PUA)(**PUA**), whereby PUA can earn up to an 80% interest in the base and precious metals (**Minerals**) identified in the Tenement.

During the quarter PUA completed an RC slimline drill program and surface rock chip sampling program. The purpose of the program was to assist in targeting for magmatic copper-nickel mineralisation by identifying prospective lithologies within the Lady Alma Igneous Complex (**LAIC**). A total of 4 slimline RC holes were drilled at Prospect C to test a portion of the LAIC and a total of 90 samples were collected.

A total of 51 surface rock chip samples were collected and sent to the laboratory. All results are expected to be received by PUA by the end of the current quarter.

The JV has no impact on the Company's rights in regards to minerals discovered and/or developed on any of its other tenure, including the Gabanintha and Yarrabubba mining leases, with Technology Metals' activities in relation to the northern Miscellaneous Licences having priority over PUA's exploration activities.

PUA has consolidated a significant land package in the region and is progressing a regional base and precious metals exploration strategy.

TENEMENTS

Table 2: Tenement Status as at 31 December 2021

LOCATION	TENEMENT	INTEREST ACQUIRED OR DISPOSED OF DURING THE QUARTER	ECONOMIC INTEREST
Gabanintha Project (WA)	E51/1818	Nil	100%
Gabanintha Project (WA)	E51/1510	Nil	100%
Gabanintha Project (WA)	G51/29	Nil	100%
Gabanintha Project (WA)	G51/30	Nil	100%
Gabanintha Project (WA)	L51/101	Nil	100%
Gabanintha Project (WA)	L51/102	Nil	100%
Gabanintha Project (WA)	M51/883	Nil	100%
Gabanintha Project (WA)	P51/2930	Nil	100%
Gabanintha Project (WA)	P51/3140	Nil	100%
Gabanintha Project (WA)	G51/31	Granted	100%
Gabanintha Project (WA)	L51/117	Granted	100%
Gabanintha Project (WA)	E51/2056	Application	100%
Yarrabubba Project (WA)	M51/884	Nil	100%
Yarrabubba Project (WA)	L51/113	Application	100%

During the period General Purpose Lease G51/31, for mining infrastructure and a future solar farm, and Miscellaneous Licence L51/117, in support of bore field infrastructure, were granted. E51/2056 covering the southern extension of the Gabanintha bore field, remains pending.

Miscellaneous Licence L51/113 at Yarrabubba, an application designed to replace an earlier application L51/108 as a haulage corridor connecting the Yarrabubba Mining Lease (M51/884) with the Meekatharra – Sandstone Road, is subject to an objection. The Company continues to work with the objector to resolve the objection as well as continuing with standard regulatory processes.

VANADIUM MARKET ENGAGEMENT

Subsequent to the end of the December quarter the Company announced the agreement to expand and extend the vanadium electrolyte Memorandum of Understanding (**MOU**) with LE System (**LES**), a leading Japanese VRFB R&D company with proprietary vanadium electrolyte production technology based on intellectual capital accumulated over a decade or more. The expanded MOU provides the framework for TMT and LES to jointly undertake a Feasibility Study into the development of vanadium electrolyte production capacity in Australia, utilising vanadium product from the MTMP, with the aim for TMT to be the first fully integrated mine to battery vanadium electrolyte producer in Australia.

LES will provide technical support and collaboration for the completion of the Feasibility Study and subsequent development opportunities under a technology licencing agreement. The Feasibility Study will focus on the operating, capital and permitting factors associated with the development of vanadium electrolyte production capacity, the application of LES' proprietary vanadium electrolyte technology to the premium purity vanadium to be sourced from the MTMP as well as assessing suitable locations for multiple vanadium electrolyte plants proximal to proposed large scale renewable energy production centres designed to service the major population centres of Australia.

The work to be undertaken by TMT and LES has scope to establish a significant downstream value add industry designed to target the rapidly emerging stationary storage battery market opportunities in Australia and support the growth of deployment of VRFB's in our region. This will further enhance the significant economic and social benefits for the Mid-West region of Western Australia, the State and the Nation that the development of MTMP is expected to generate over a long period of time.

The Company has a binding offtake agreement with CNMNC, which covers a minimum annual quantity of V_2O_5 to be purchased of 2.000 Tpa on a take or pay basis with an agreed pricing structure and an initial three-year term. It is also progressing offtake discussion with LES, and is progressing the negotiation of binding offtake agreements with Shaanxi Fengyuan and Big Pawa, albeit that the MOU with these counterparties have lapsed as a result of travel restrictions due to the ongoing issues associated with the COVID-19 pandemic.

The Company continues to engage with a range of potential customers across various geographic jurisdictions and end use requirements that have a shared long-term positive view of the vanadium industry, a recognition of the high purity vanadium product and highly competitive lowest quartile cash operating costs of the MTMP.

The integration of Yarrabubba into the MTMP, and the resultant opportunity to accelerate the delivery of vanadium production compared to the previous staged development approach, combined with the advanced stage of study and approvals, has provided opportunities to actively progress further offtake discussions with a range of counterparties.

TMT is working closely with the Western Australian Government's Lead Agency team, the Environmental Protection Authority, the WA Government's Department of Jobs, Tourism, Science and Innovation's (**JTSI**), the Northern Australia Infrastructure Facility (**NAIF**), the Critical Minerals Facilitation Office (**CMFO**), other Government agencies and a range of non-government stakeholders as it progresses the development of the MTMP.

THE MTMP will be a long term, low cost stable producer of high purity vanadium, a critical mineral with a vital role to play in the efficient and effective deployment of renewable energy and reduction of emissions, as well as highly sought-after titanium.

CORPORATE

Appointment of experienced Chief Operating Officer²

As a key component of the timely progression of the development of the MTMP Mr David English, a mining project delivery professional, has been appointed to the newly created role of Chief Operating Officer. David was previously engaged by the Company as Project Director to support the GVP DFS, with his return to the Company as COO ensuring the knowledge he gained from his earlier involvement will be fully utilised as the MTMP Integration Study progresses.

David brings a wealth of project development and operational experience gained from nearly 40 years working in the mining industry including some of Western Australia's major recent project developments.

His experience includes:

- Project Manager for IGO Limited's Nova Nickel Project including, overseeing the project's Definitive Feasibility Study, environmental approvals and ultimately delivery of construction safely, on-time and on-budget;
- Project Manager for Sandfire Resources' DeGrussa Project, overseeing the design, construction, commissioning and handover of all processing and infrastructure facilities;
- General Manager Operations at the Windimurra Vanadium Project from February 2008 until February 2010, involved in the process of re-developing the project, including environmental approvals and permitting, commissioning and project ramp up;
- Project Consultant to the Oz Minerals' West Musgrave Project;
- Project Director for the Covalent Lithium feasibility study;
- Project development and operations leadership roles in various commodities including iron ore, gold, nickel, copper, vanadium, lithium and lead.

David's track record of project delivery combined with his experience at the Windimurra Vanadium Project will be invaluable as it is applied to the timely progression of the MTMP Integration Study and subsequent design and implementation of the project development strategy.

David commenced in his role as COO in early January 2022.

Appointment of Jacqueline Murray to the Board³

Following the investment by Resources Capital Fund (**RCF**) during the September quarter, the Company has appointed RCF partner, Mrs Jacqueline Murray to the Board as a Non-Executive Director.

Mrs Murray joined RCF in 2012 after working in business analysis and improvement roles with BHP Billiton. Prior to this she worked in various geotechnical engineering roles in underground and open pit operations within BHP Billiton and WMC Resources. Mrs. Murray holds an MBA from Melbourne Business School and a Bachelor of Geological Engineering from RMIT University. She is a graduate of the Australian Institute of Company Directors and currently serves on the Board of Directors of Alliance Mining Commodities and Khoemacau Copper Mining.

Mrs Murray stood for re-election at the Company's Annual General Meeting in November and was re-elected with 99.98% support.

Shares and Capital Raising update⁴

As at 27 January 2022, the Top 20 shareholders held 55.93% of the fully paid Ordinary shares in the Company. The Company had cash of \$21.7 million as at 31 December 2021. During the quarter, 16,976,319 Ordinary shares at \$0.375 per share were issued in November following shareholder approval, raising \$6.4 million as the second tranche of the \$20 million raising announced in September.

Project specific announcements lodged on the ASX during the December 2021 quarter were:

- 10 November 2021 – 110% increase to Yarrabubba Indicated Mineral Resource

- 14 December 2021 – Murchison Technology Metals Project Integration Study Update

In accordance with Section 6.1 disclosure in the Appendix 5B, payments of monthly and accrued Director fees of \$99k during the December quarter.

In accordance with Section 6 disclosures in the Appendix 5B, the Company engages Cicero Group Pty Ltd for financial & management accounting, administrative, registered office, directorship and company secretarial services. Mr Sonu Cheema is a Director of Cicero Group Pty Ltd (\$11,000 per month exclusive of GST).

Outflows of \$371k from operating activities during the December quarter (refer Item 1.2 (a), (d) and (e) of the Appendix 5B) predominantly comprised of expensed exploration costs, corporate & corporate legal fees, marketing & IR, KMP remuneration, staff salaries, insurance and travel expenses. Pursuant to section 2.1 (d), the capitalised exploration expenditure of \$580k incurred by the Company relates to Murchison Technology Metals Project metallurgical testwork, drilling, field expenses, legal, GVP environmental consultants, technical consultants, geological consultants and tenement administration & reporting.

Table 3: TMT Top 20 Holders report as at 27 January 2022

Position	Holder Name	Holding	% IC
1	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	39,788,371	19.54%
2	BNP PARIBAS NOMS PTY LTD <UOB KH P/L AC UOB KH DRP>	16,128,239	7.92%
3	GREAT SOUTHERN FLOUR MILLS PTY LTD	14,000,000	6.87%
4	RETZOS EXECUTIVE PTY LTD <RETZOS EXECUTIVE S/FUND A/C>	5,657,852	2.78%
5	COLIN DAVID ILES	5,051,189	2.48%
6	STATION NOMINEES PTY LTD <STATION SUPER FUND A/C>	5,000,000	2.46%
7	ATASA HOLDINGS PTY LTD <TS3A FAMILY A/C>	4,452,269	2.19%
8	UBS NOMINEES PTY LTD	2,355,902	1.16%
9	PERRIWINKLE INVESTMENTS PTY LTD	2,074,602	1.02%
10	BNP PARIBAS NOMINEES PTY LTD <IB AU NOMS RETAILCLIENT DRP>	2,052,219	1.01%
11	CITICORP NOMINEES PTY LIMITED	2,026,134	0.99%
12	MR DAVID JAMES HARRINGTON	1,970,000	0.97%
13	MR RICHARD THOMAS HAYWARD DALY & MRS SARAH KAY DALY <DALY FAMILY S/F TOM A/C>	1,925,513	0.95%
14	RETZOS FAMILY PTY LTD <RETZOS FAMILY S/FUND A/C>	1,900,000	0.93%
15	MR PAUL VENDA DIVIN	1,878,827	0.92%
16	SHAYDEN NOMINEES PTY LTD	1,714,866	0.84%
17	MR JACOB EDWARDS & MRS CATHY EDWARDS	1,702,671	0.84%
18	RONAY INVESTMENTS PTY LTD	1,456,239	0.72%
19	BNP PARIBAS NOMINEES PTY LTD SIX SIS LTD <DRP A/C>	1,452,270	0.71%
20	PASIAS HOLDINGS PTY LTD	1,325,811	0.65%
	Total	113,912,974	55.93%
	Total issued capital - selected security class(es)	203,661,390	100.00%

Marketing and Promotions

During the quarter, the Company presented virtually at the Noosa Mining Conference⁵ and the Spark Plus Mining Day⁶.

ABOUT VANADIUM

Vanadium is a hard, silvery grey, ductile and malleable speciality metal with a resistance to corrosion, good structural strength and stability against alkalis, acids and salt water. The elemental metal is rarely found in nature. The main use of vanadium is in the steel industry where it is primarily used in metal alloys such as rebar and structural steel, high speed tools, titanium alloys and aircraft. The addition of a small amount of vanadium can increase steel strength by up to 100% and reduces weight by up to 30%. Vanadium high-carbon steel alloys contain in the order of 0.15 to 0.25% vanadium while high-speed tool steels, used in surgical instruments and speciality tools, contain in the range of 1 to 5% vanadium content. Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

An emerging and likely very significant use for vanadium is the rapidly developing energy storage (battery) sector with the expanding use and increasing penetration of the vanadium redox flow batteries (**VRFB's**). VRFB's are a rechargeable flow battery that uses vanadium in different oxidation states to store energy, using the unique ability of vanadium to exist in solution in four different oxidation states. VRFB's provide an efficient storage and re-supply solution for renewable energy – being able to time-shift large amounts of previously generated energy for later use – ideally suited to micro-grid to large scale energy storage solutions (grid stabilisation). Some of the unique advantages of VRFB's are:

- a lifespan of 20 years with very high cycle life (up to 20,000 cycles) and no capacity loss,
- rapid recharge and discharge,
- easily scalable into large MW applications,
- excellent long term charge retention,
- improved safety (non-flammable) compared to Li-ion batteries, and
- can discharge to 100% with no damage.

Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand, with mid term growth supported by the emergence of VRFB's as a preferred large scale energy storage solution.

This announcement has been authorised by the Board of Technology Metals Australia Limited.

For, and on behalf of, the Board of the Company,

Ian Prentice
Managing Director
Technology Metals Australia Limited

- ENDS -

⁵ ASX Announcement 12 Nov 2021 – TMT presentation at Noosa Mining Conference

⁶ ASX Announcement 14 Dec 2021 – TMT Spark Plus Mining Day Presentation

About Technology Metals Australia Limited

Technology Metals Australia Limited (ASX: TMT) was incorporated on 20 May 2016 for the primary purpose of identifying exploration projects in Australia and overseas with the aim of discovering commercially significant mineral deposits. The Company's primary exploration focus has been on the Murchison Technology Metals Project located 40 km south east of Meekatharra in the mid-west region of Western Australia with the aim to develop this project to potentially supply high-quality V_2O_5 flake product to both the steel market and the emerging vanadium redox battery (VRFB) market.

The Project consists of twelve granted tenements and two applications divided between the Gabanintha Vanadium Project (12 tenements) and the Yarrabubba Project (2 tenements). Vanadium mineralisation is hosted by a north west – south east trending layered mafic igneous unit with a distinct magnetic signature. A key differentiation between Gabanintha and a number of other vanadium deposits is the consistent presence of the high-grade massive vanadium – titanium – magnetite basal unit, which results in an overall higher grade for the Gabanintha Vanadium Project.

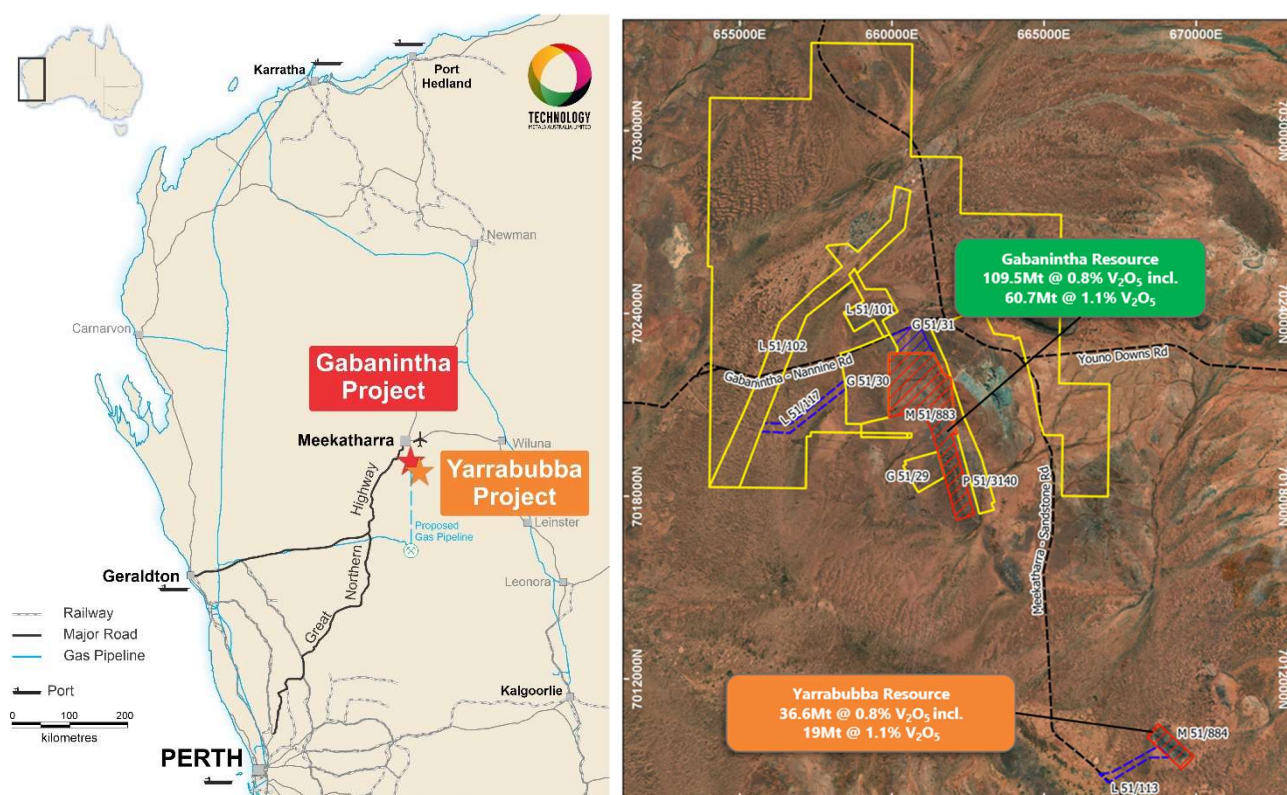


Figure 2: GVP and Yarrabubba Location and Tenure

Data from the Company's 2017, 2018 drilling programs, including 111 RC holes and 53 HQ and PQ diamond holes at the Gabanintha Project and 46 RC holes and 27 PQ sized diamond holes completed in late 2018 and 2020/21 at the Yarrabubba Project, has been used by independent geological consultants CSA Global to generate a global Inferred and Indicated Mineral Resource estimate, reported in accordance with the JORC Code 2012 edition, for the combined Projects. The Resource estimate confirms the position of the Murchison Technology Metals Project as one of the highest grade vanadium projects in the world.

Global Mineral Resource estimate for the MTMP as at 10 November 2021

Material Type	Classification	Mt	V ₂ O ₅ %	Fe%	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI%	P%	S%
Massive Magnetite	Measured (North)	1.2	1.0	44.7	6.2	10.4	11.4	0.0	0.009	0.2
	Indicated (North)	18.5	1.1	49.1	5.2	5.8	12.9	-0.1	0.007	0.2
	Indicated (South)	12.0	1.1	48.2	5.4	7.4	12.5	1.8	0.010	0.3
	Total Indicated	30.6	1.1	48.8	5.3	6.4	12.7	0.6	0.008	0.2
	Inferred (North)	41.0	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	7.0	1.1	47.4	5.7	8.3	12.3	2.1	0.010	0.3
	Total Inferred	48.1	1.1	47.7	5.6	7.3	12.6	0.5	0.008	0.2
	Massive Global	79.8	1.1	48.1	5.5	7.0	12.6	0.6	0.008	0.2
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3.0	0.030	0.2
	Indicated (South)	8.1	0.6	28.5	12.0	25.2	7.3	2.4	0.018	0.2
	Total Indicated	18.4	0.6	28.6	12.6	25.4	7.4	2.7	0.025	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	9.4	0.5	26.6	13.3	27.1	6.9	2.4	0.014	0.3
	Total Inferred	47.9	0.5	27.0	12.8	27.4	6.9	3.1	0.025	0.2
	Diss / Band Global	66.3	0.5	27.4	12.8	26.8	7.0	3.0	0.025	0.2
Combined	Global Combined	146.2	0.8	38.7	8.8	16.0	10.1	1.7	0.016	0.2

** Note: The Mineral Resources were estimated within constraining wireframe solids using a nominal 0.9% V₂O₅% lower cut-off grade for the massive magnetite zones and using a nominal 0.4% V₂O₅% lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resources are quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V₂O₅%. Differences may occur due to rounding.*

Data from the global Mineral Resource estimate and the 2019 DFS on the GVP were used by independent consultants CSA Global to generate a Proven and Probable Ore Reserve estimate based on the Measured and Indicated Mineral Resource of 39.6 Mt at 0.9% V₂O₅ located within the Northern Block of tenements and the Southern Tenement at Gabanintha.

Ore Reserve Estimate as at 15 September 2020

Reserve Category	Tonnes (Mt)	Grade V ₂ O ₅ %	Contained V ₂ O ₅ Tonnes (Mt)
Proven	1.1	0.96	0.01
Probable	37.9	0.90	0.34
Total	39.0	0.90	0.26

- Note: Includes allowance for mining recovery (98% for massive magnetite ore and 95% for banded and disseminated ore) and mining dilution applied as a 1 metre dilution skin; resulting in a North Pit dilution for massive magnetite ore of 13% at 0.45% V₂O₅, and North Pit dilution for banded and disseminated ore of 29% at 0.0% V₂O₅; a Central Pit dilution for massive magnetite ore of 10% at 0.46% V₂O₅, and Central Pit dilution for banded and disseminated ore of 20% at 0.0% V₂O₅; a Southern Pit dilution for massive magnetite ore of 12% at 0.49% V₂O₅, and Southern Pit dilution for banded and disseminated ore of 15% at 0.21% V₂O₅)
- Rounding errors may occur

Capital Structure	
Fully Paid Ordinary Shares on Issue	203.7m
Unquoted Options (\$0.20 – 10/05/23 expiry) ¹	8.00m
Unquoted Options (\$0.50 – 01/01/24 expiry) ²	4.35m
Unquoted Options (\$0.25 – 15/06/22 expiry)	6.16m
Unquoted Options (\$0.60 – 30/06/25 expiry) ³	2.00m
Class B Performance Rights ⁴	1.825m
Class C Performance Rights ⁵	1.325m
Class D Performance Rights ⁶	0.50m

1. Director and employee options – 3.875m vested on grant of the mining licences, 4.125 million vest on Gabanintha FID
2. Employee options – 3.925million vest and subject to the Company making a final investment decision (FID) for the MTMP prior to 30 October 2023 and 0.425 million vest subject to the Company achieving first commercial production from the MTMP prior to 30 October 2023.
3. Employee options vest subject to the Company achieving first commercial production from the MTMP prior to 30 June 2025.
4. Each Class B Performance Right is a right to receive one fully paid ordinary share in TMT, subject to the terms of the employee incentive scheme and subject to the Company making a final investment decision (FID) for the MTMP prior to 30 October 2023.
5. Each Class C Performance Right is a right to receive one fully paid ordinary share in TMT, subject to the terms of the employee incentive scheme and subject to the Company achieving first commercial production from the Yarrabubba Project prior to 30 October 2023.
6. Each Class D Performance Right is a right to receive one fully paid ordinary share in TMT, subject to the terms of the employee incentive scheme and subject to the Company achieving first commercial production from the MTMP prior to 30 June 2025.

Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Technology Metal Australia Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. Technology Metal Australia Limited believes that it has a reasonable basis for its forward-looking statements; however, forward-looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

Competent Persons Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr John McDougall. Mr McDougall is the Company's Exploration Manager and a member of the Australian Institute of Geoscientists. Mr McDougall has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (**JORC Code**). Mr McDougall consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin. Mr Aaron Meakin is a Principal Consultant of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**). Mr Aaron Meakin consent to the disclosure of the information in this announcement in the form and context in which it appears.

The information that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso formerly an employee of CSA Global Pty Ltd. Mr Grosso takes overall responsibility for the Report as Competent Person. Mr Grosso is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Daniel Grosso has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

The information in this report that relates to the Processing and Metallurgy for the Murchison Technology Metals project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan, a full-time employee of Technology Metals Australia. Mr Morgan is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Brett Morgan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 5B

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

Name of entity

Technology Metals Australia Limited

ABN

64 612 531 389

Quarter ended ("current quarter")

31 December 2021

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(133)	(362)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(138)	(280)
	(e) administration and corporate costs	(269)	(454)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	4	6
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (ATO Payments / Receivables)	165	400
1.9	Net cash from / (used in) operating activities	(371)	(690)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(35)	(35)
	(d) exploration & evaluation	(581)	(2,139)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 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	(616)	(2,174)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities) ¹	18,962	20,000
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	37	37
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(1,060)	(1,060)
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	17,939	18,977

¹ As announced on 23 September, the Company initiated a Share Placement which was completed subsequent to the September quarter on 5 October 2021. The Company held \$1,038k in the trust account.

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,747	5,586
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(371)	(690)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(616)	(2,174)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	17,939	18,977

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 (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	21,699	21,699

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	21,699	4,747
5.2	Call deposits	-	-
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)	21,699	4,747

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	99
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>		

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

7. Financing facilities		Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>			
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>			
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 quarter 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)	(371)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(616)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(987)
8.4 Cash and cash equivalents at quarter end (item 4.6)	21,699
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	21,699
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	21.99
<i>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.</i>	
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: NA	
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: NA	
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: NA	
<i>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.</i>	

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:31.1.22.....

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.