



TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

28 October 2021

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Directors

Michael Fry:
Chairman

Ian Prentice:
Managing Director

Jacqueline Murray:
Director

Sonu Cheema:
Director and Company Secretary

Issued Capital

186,535,071 ("TMT") Fully Paid
Ordinary Shares

6,313,167 Unquoted Options
exercisable at \$0.25 on or before 15
June 2022

12,350,000 Unquoted Director and
Employee Options at various
exercise prices and expiry dates

2,650,000 Performance Rights

ASX Code: TMT

FRA Code: TN6



QUARTERLY ACTIVITIES REPORT & APPENDIX 5B

FOR THE QUARTER ENDING 30 SEPTEMBER 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 30 September 2021.

MURCHISON TECHNOLOGY METALS PROJECT

- Assay results confirm thick zones of high grade massive magnetite mineralisation from drilling at Yarrabubba, including:
 - GBRC145: 24m @ 50.2% Fe, 1.13% V₂O₅ and 12.8% TiO₂ from 176m
 - GBDD046: 67m @ 36.6% Fe, 0.81% V₂O₅ and 9.4% TiO₂ from 69m
- Strategic review highlights the benefits of integrating Yarrabubba into the development of the Gabanintha high purity vanadium project as part of the Murchison Technology Metals Project.
- Analysis indicates that the higher V₂O₅ content of the Yarrabubba concentrate has potential to materially impact the processing efficiency and economic returns compared to the 2019 GVP DFS, with scope to reduce operating costs in the early years of the integrated Project.
- Integration strategy provides an opportunity to accelerate the delivery of vanadium production.
- Mineral Resource estimate update for Yarrabubba to be delivered in the December quarter.
- Strong institutional support for capital raising endorses the high-quality nature of TMT's vanadium assets.

CORPORATE

- A \$20 million equity placement at \$0.375 per share, cornerstoned by Resource Capital Fund VII L.P. (**RCF VII**), which is investing \$13.5 million and will become an 18% shareholder.
- Tranche 1 of the Placement (\$13.6 million) completed in October, with Tranche 2 (\$6.4 million), subject to shareholder approval, to be completed in November.
- As at 30 September 2021, the Company had cash of \$3.7 million and as at 25 October the Top 20 shareholders held 52.73% of the fully paid Ordinary shares.

Chairman Michael Fry commented:

"RCF VII coming on board as a cornerstone, after an extensive due diligence process, is a strong endorsement of the strategy for the development of our vanadium assets"

"The integration of Yarrabubba ore as early feed to the GVP plant for the Murchison Technology Metals Project development, a strategy supported by RCF VII, provides a very exciting opportunity for TMT to be the world's next large scale primary vanadium producer."

During the September 2021 quarter, as part of the Murchison Technology Metals Project ("**MTMP**"), the Company advanced work on the Yarrabubba Project ("**Yarrabubba**") DFS. Whilst the focus of the DFS was the progression of Yarrabubba as a standalone iron-vanadium concentrate project, analysis during the quarter highlighted the benefits of integrating Yarrabubba feedstock early in the life of the Gabanintha high purity vanadium project ("**GVP**").

Yarrabubba's higher vanadium in concentrate grades (compared to Gabanintha) indicate the potential to reduce operating costs in the early years of the project, lowering the implementation risk of the full MTMP development. An internal analysis showed that the 'vanadium' product strategy for Yarrabubba is expected to enhance processing efficiencies and produce a better economic outcome than the 'iron-vanadium' strategy.

Importantly the strategic review highlighted the opportunity to bring forward the delivery of vanadium production for the integrated MTMP, supporting growth in vanadium consumption and the rapidly emerging Vanadium Redox Flow Battery ("**VRFB**") industry.

The modified strategy for Yarrabubba ore is supported by new cornerstone investor, RCF VII, with the integration study timeline capturing metallurgical testwork to confirm the performance of Yarrabubba concentrates through the GVP roast – leach circuit.

YARRABUBBA VANADIUM PROJECT

The Yarrabubba Vanadium Project, located on granted Mining Lease M51/884, hosts an Indicated and Inferred Mineral Resource estimate (**MRE**) of 27.7Mt at 38.7% Fe and 0.9% V₂O₅ including a high-grade massive mineralisation zone of 14.4Mt at 48.1% Fe and 1.1% V₂O₅ (ASX Announcement 1 July 2020).

The Indicated Mineral Resource component of 9.6Mt at 45.3% Fe and 1.0% V₂O₅ consists of only fresh mineralisation, which commences from 15 to 25m below surface. Predominantly transitional material and minor oxide above these depths is classified as Inferred Resource due to predicted lower metal recoveries as indicated by limited metallurgical data from these shallow zones.

Yarrabubba Definitive Feasibility Study Status

Metallurgical testwork using Low Intensity Magnetic Separation (**LIMS**) during the June quarter demonstrated that a product grading 62.6-64.3% Fe and 1.56-1.65% V₂O₅ could be achieved from Yarrabubba ore.

An internal analysis was undertaken by the Company during the September quarter assessing the potential economic return of Yarrabubba as a standalone iron-vanadium project compared to integration of the higher vanadium in concentrate grades into the GVP vanadium processing circuit. Testwork shows that the Yarrabubba concentrate V₂O₅ content is typically 25% higher than the GVP concentrate feed grades to the roasting kiln.

The higher vanadium in concentrate grades are expected to produce a better economic outcome as a high purity V₂O₅ flake product than under the 'iron-vanadium' concentrate product strategy. The Yarrabubba concentrate also has potential to materially impact the processing efficiency compared to the GVP DFS, with the high grade Yarrabubba material expected to provide the majority of the initial feed for the integrated MTMP.

This is expected to deliver higher production and reduced costs in the early years of the operation, as well as scope for the production of a highly sought-after titanium co-product from the non-magnetic tails stream for the Yarrabubba feedstock. This is expected to lower the implementation risk of the full vanadium processing circuit development and provides the opportunity to reduce the payback period of the integrated MTMP.

The Yarrabubba deposit is hosted in the same geological sequence as GVP, as such it is not expected that the GVP process flow sheet, as defined in the 2019 GVP DFS (ASX August 2019), will require any material changes to incorporate feed from Yarrabubba.

It is however envisaged that additional metallurgical testwork, building on the work completed to date for Yarrabubba, will be required to confirm the performance of Yarrabubba concentrates through the GVP roast – leach circuit. This work, involving muffle furnace and batch kiln roast – leach testwork on representative magnetic concentrates, has commenced and is expected to run over the course of the December quarter.

RC Drilling Program

The Yarrabubba Mineral Resource infill and extension RC drilling program was completed successfully in late June, with all samples dispatched to the laboratory.

This program was designed, in conjunction with the previously completed comprehensive diamond drilling program, to convert Inferred Mineral Resources to Indicated Mineral Resource category as well as expand the overall Mineral Resource.

Drilling in the south-east of the Mineral Resource has identified thickening of the orebody with results including¹:

- GBRC145: 24m @ 50.2% Fe, 1.13% V₂O₅ and 12.8% TiO₂ from 176m
- GBDD057: 26.5m @ 46.6% Fe, 1.06% V₂O₅ and 12.1% TiO₂ from 21.5m

Previously identified thick intersections in GBRC048 and GBDD033 (see ASX announcements 14 September 2017 and 30 April 2020) have been complemented by¹:

- GBDD046: 67m @ 36.6% Fe, 0.81% V₂O₅ and 9.4% TiO₂ from 69m
 - including 25m @ 45.4% Fe, 1.04% V₂O₅ and 11.8% TiO₂ from 84m,
 - and 15m @ 49.6% Fe, 1.16% V₂O₅ and 13% TiO₂ from 114m.

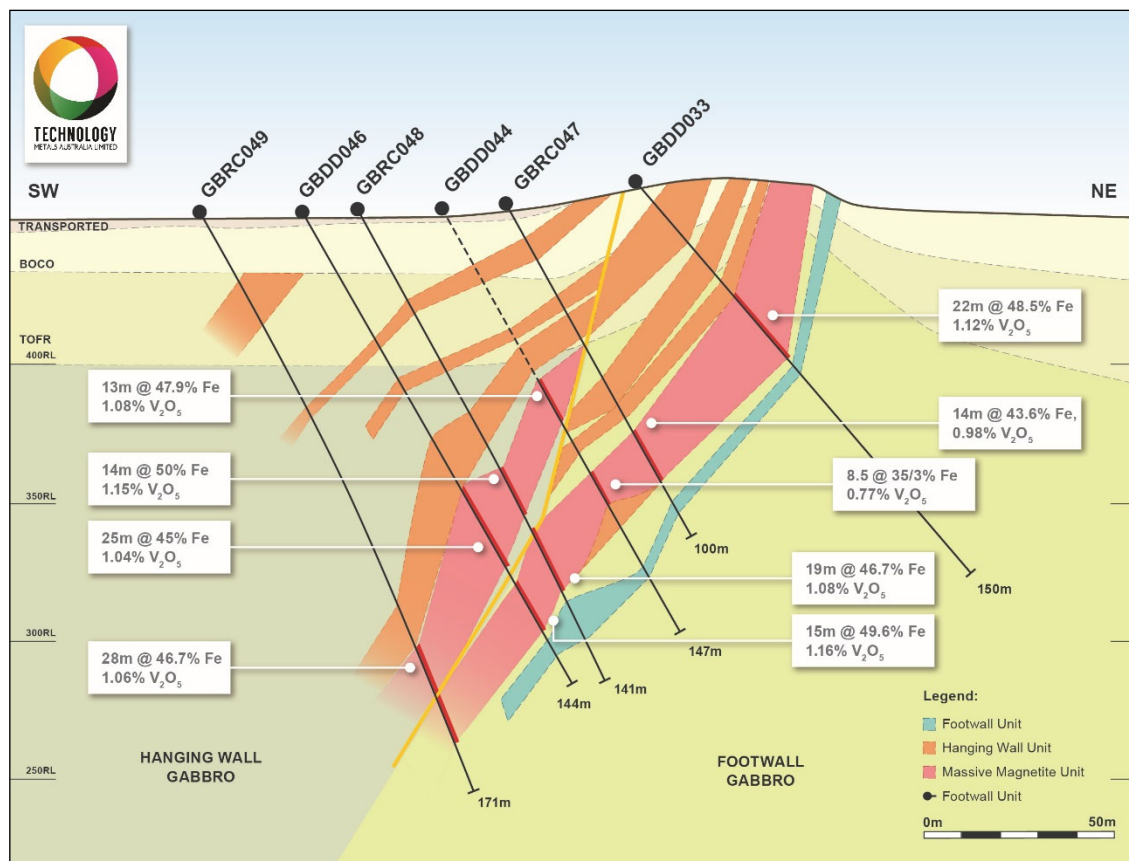


Figure 1: Cross section through the central section of Yarrabubba showing thickening of massive magnetite zone

¹ ASX Announcement 16 September 2021 - YARRABUBBA RESOURCE DRILLING CONFIRMS THICKENING OF MASSIVE MAGNETITE ZONES

The Yarrabubba deposit has been drilled out to better than 100m x 50m spacing, with these results expected to lead to an increased Mineral Resource and Ore Reserve estimate.

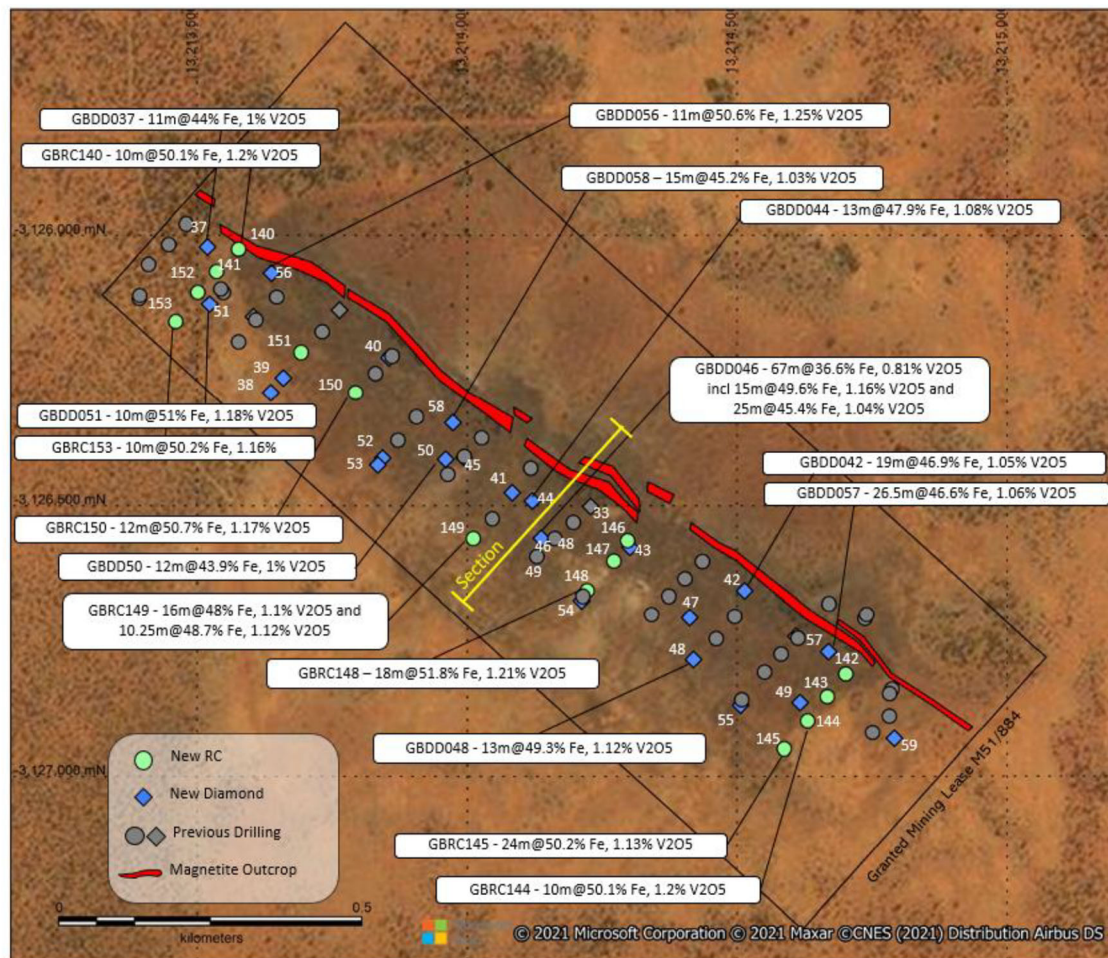


Figure 2: Drillhole location plan, Yarrabubba Project¹

Yarrabubba Mineral Resource Estimate

Work on the Yarrabubba Mineral Resource estimation (“**MRE**”) update has commenced. The decision to progress the integration of Yarrabubba into the GVP processing circuit, establishing the integrated MTMP, has resulted in the need to adjust some of the modifying factors required for the update of the MRE. This additional work has slightly delayed the delivery of the updated MRE.

The Yarrabubba MRE will be used to update the open pit mining model to generate a revised open pit Ore Reserve and provide a detailed mining schedule / cost model. This Ore Reserve will be merged with the GVP Ore Reserve to provide a mining and processing schedule for the overall integrated MTMP, with the expectation that Yarrabubba will provide the majority of the initial feed for the MTMP.

The updated Yarrabubba open pit mining model will also incorporate geotechnical data derived from the comprehensive diamond drilling program completed earlier in the year as well as taking into account dewatering parameters informed by targeted RC drilling completed to assess the quality and quantity of Yarrabubba groundwater.

GABANINTHA VANADIUM PROJECT (GVP)

The Company referred the GVP to the WA Environmental Protection Authority (“**EPA**”) in November 2018, with the EPA determining that the GVP will undergo a formal environmental impact assessment with no public comment period. A range of environmental field surveys were completed between 2017 and 2020 designed to address the key environmental factors in relation to the development of the GVP. The compilation of the data collected, and preparation of a draft Environmental Review Document (“**ERD**”) was completed early this year, with a final draft of the ERD submitted to the EPA in March 2021.

Feedback from the EPA and other decision-making authorities (“**DMA's**”) on the final draft ERD has been received, with the Company and its environmental consultants updating and revising the ERD to address this feedback. The revised implementation strategy is being taken into account, with the revised ERD expected to be submitted during the current quarter.

MARKET ENGAGEMENT

Technology Metals is targeting diversity of geography and end-user for its product offtake strategy, with a focus on maximising the application of the high purity GVP vanadium pentoxide product, with discussions having focused on jurisdictions ranging from China, Japan, Korea, India and Europe. To date this strategy has delivered outcomes ranging from an executed binding offtake agreement, memorandums of understanding / letters of intent through to technology collaboration agreements.

The strategic review assessing the benefits of integrating Yarrabubba into the development of GVP highlights the opportunity to accelerate the delivery of vanadium production at the integrated MTMP, providing opportunities to actively progress further offtake discussions with a range of counterparties. The Company is engaging with a range of groups with 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 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, and an MOU with Shaanxi Fengyuan, which covers a minimum annual quantity of V_2O_5 to be purchased of 3.000 Tpa., which is being progressed towards a binding agreement.

Technology Metals also maintains an active focus on participating in the global vanadium electrolyte / VRFB business as well as progressing assessment of establishing a downstream vanadium electrolyte production business in Australia linked to production of high purity vanadium from the MTMP. This strategy is strongly supported through its MOU with LE System Co., Ltd (**LES**) a leading Japanese VRFB R&D company with strong relationships with the Japanese Government and major Japanese corporations. This opportunity has scope to establish a significant downstream value add industry designed to target what TMT sees as the rapidly emerging stationary storage battery market opportunities in Australia, further enhancing the significant economic and social benefits for the Mid-West region of Western Australia, the State and the Nation that the development of the MTMP is expected to generate over a long period of time.

PROJECT DEVELOPMENT PARTNER ENGAGEMENT

Technology Metals continues to work closely with the Western Australian Government's Lead Agency team, the Environmental Protection Authority WA, the Northern Australia Infrastructure Facility ("NAIF"), 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.

The Western Australian Government's Department of Jobs, Tourism, Science and Innovation's ("JTSI") North-East Asian based representatives continue to support the Company and its Corporate Advisors on a number of fronts in the Japanese and South Korean markets, facilitating relationships with a range of parties working towards mutually beneficial commercial outcomes, with a particular focus on large-scale stationary storage opportunities. The Company and its developing relationship with LE Systems featured in JTSI's recent Japan Market Outlook 2021 – 2022.

The development of the Company's projects will have a long and meaningful impact on the economic and social development of the Mid-West and broader region, as well as at the State and National level. Ongoing engagement with these Government agencies and other stakeholders is a key part of the Companies development strategy.

VANADIUM MARKET COMMENTARY

The vanadium market attained a short term peak in pricing towards the beginning of the September quarter, with the Chinese market price dropping quite dramatically in the month of September in line with a broader "cooling" of commodity prices, including iron ore. Chinese Government regulations targeting reduced steel production in line with emission reduction targets appears to have been a significant contributor to this decline. Chinese vanadium pentoxide prices declined in late September 2021 to levels last seen in December 2020.

The European vanadium pentoxide price attained a short term peak of ~US\$10/lb at the beginning of the quarter and experienced a more modest price decline to a current price of around US\$8.00/lb, in line with prices last seen in around May 2021.

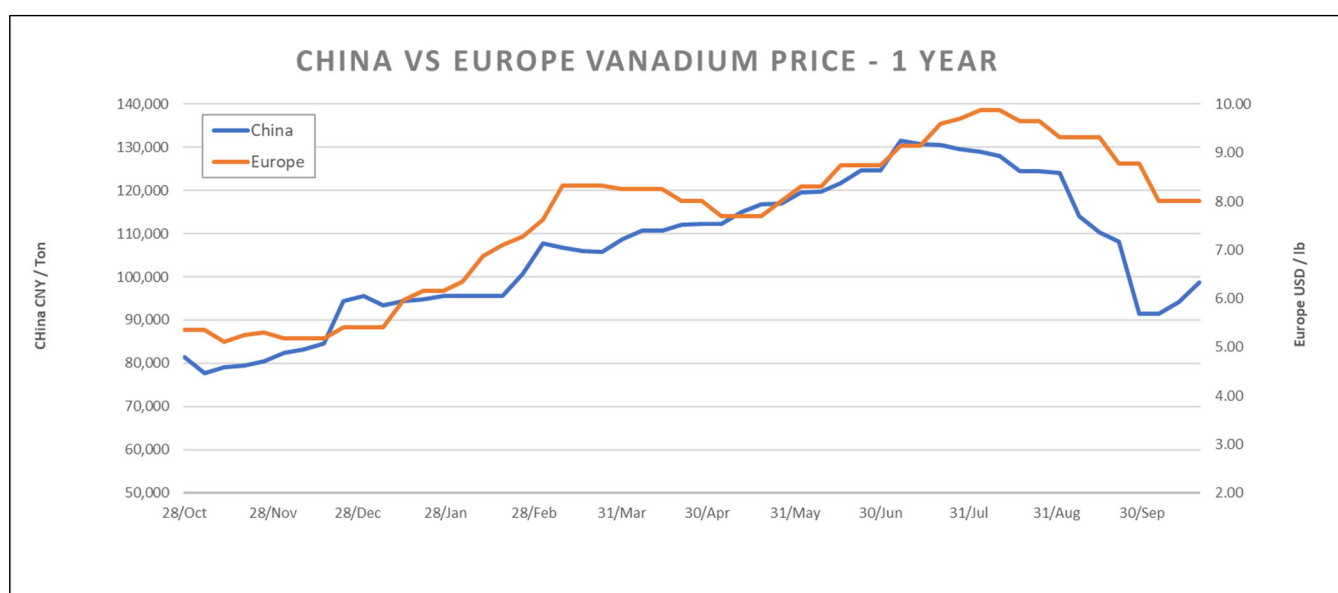


Figure 3: Vanadium Pentoxide Price – China vs Europe – October 2020 to October 2021 (Source: FerroAlloyNet)

The price chart as shown in Figure 3 demonstrates relatively consistent price appreciation for both China and Europe from late October through to beginning of the declines witnessed at the beginning of the quarter. As shown in Figure 3, and supported by commentary coming out of China, demand for vanadium pentoxide in China has increased in recent weeks, with an associated increase in the reported Chinese vanadium pentoxide price.

Global vanadium production in the first half of calendar year 2021 is estimated at 56,277 metric tonnes of vanadium units, an increase of ~4,500 metric tonnes of vanadium units compared to the first half of calendar year 2020, but a decrease of ~2,500 metric tonnes of vanadium units compared to the second half of calendar year 2020.

Vanadium consumption grew dramatically in the first half of calendar year 2021 to an estimated 61,725 metric tonnes of vanadium units, compared to an estimated 51,325 metric tonnes of vanadium units in a COVID-19 impacted first half of calendar year 2020.

These figures indicate that there was a ~5,500 metric tonnes vanadium units inventory decline / production shortfall in the first half of calendar year 2021, the first inventory decline since 2018, albeit that the market has been broadly in balance during the intervening period.

This set of circumstances has resulted in the consistent improvement in global vanadium prices, which is expected to continue for some time reflecting the limited potential for supply side response without the development of new vanadium mining projects, such as the MTMP.

The Company is ideally placed to respond to this demand driven market, with a DFS completed on the Tier 1 high grade, low cost, large scale, long life GVP and the assessment of the integration of Yarrabubba into the MTMP expected to provide a favourable development outcome.

NORTHERN EL / GREENROCKS EXPLORATION JOINT VENTURE

The Company has an exploration joint venture (**JV**) over the northern EL 51/1818 (**Tenement**) at Gabanintha with Peak Minerals Limited (ASX: PUA). During the period, PUA completed a two-tranche Placement to raise a total of \$4.9 million. The proceeds will be used for exploration activities across PUA's portfolio of WA copper projects with a particular focus on the Greenrocks magmatic sulphide project near Gabanintha including the E51/1818 JV with Technology Metals.

Additionally during the September quarter, the Greenrocks project produced results from RC drilling at the Tal Val prospect on the Tenement that returned a peak assay of 1m @ 1.52% Cu. Further mapping and sampling has been completed as PUA prepares for upcoming drill programs.

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. In regards to exploration activities on the northern Miscellaneous Licences, PUA must not interfere with Technology Metals' activities.

TENEMENTS

All tenure required for the development of GVP is in place, including Mining Lease M51/883 (granted for an initial 21 years from 28 August 2020) Miscellaneous Licences for the bore field and camp and General Purpose Leases for mining infrastructure. Miscellaneous Licence (L51/117) in support of bore field infrastructure was granted subsequent to the end of the quarter, whilst a General Purpose Lease (G51/31) for mining infrastructure and a future solar farm is pending grant (see Table 1 and Figure 4). Exploration Licence application (E51/2056) covers the southern end of the GVP bore field.

Mining Lease M51/884, which covers the Yarrabubba Vanadium Project, was granted on 28 August 2020 for an initial 21 years. The Company applied for a Miscellaneous Licence, L51/113, for the haulage corridor connecting the Yarrabubba Mining Lease with the Meekatharra – Sandstone Road, to replace the earlier application, L51/108, which was subject to an objection. The new application was designed to address the objections raised, after consultation with the objecting party, however the new application has now had an objection lodged. The Company is working through processes and procedures required to resolve the objection, including standard regulatory processes.

Table 1: Tenement Status as at 30 September 2021

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

CORPORATE

As at 25 October 2021, the Top 20 shareholders held 52.73% of the fully paid Ordinary shares in the Company. The Company had cash of \$3.7 million as at 30 September 2021.

Subsequent to the end of the quarter, 36,357,014 Ordinary shares were issued under Tranche 1 of the Placement announced on 23 September 2021, raising \$13.6 million at \$0.375 per share. A further 16,976,319 Ordinary shares at \$0.375 per share are proposed to be issued in November following shareholder approval, raising an additional \$6.4 million.

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

- 1 July 2021 – Yarrabubba DFS on track
- 16 September 2021 – Drilling confirms thickening of massive magnetite zones
- 23 September 2021 – RCF VII cornerstones \$20 million placement

In accordance with Section 6.1 disclosure in the Appendix 5B, payments of monthly and accrued Director fees of \$97k during the September quarter.

In accordance with Section 6.2 disclosures in the Appendix 5B, the Company engages Cicero Group Pty Ltd for 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 \$319k from operating activities during the September quarter (refer Item 1.2 (a), (d) and (e) of the Appendix 5B) predominantly comprised of expensed exploration costs, corporate & legal fees, marketing & IR, KMP remuneration, staff salaries, insurance and travel expenses. Pursuant to section 2.1 (d), the capitalised exploration expenditure of \$1,558k incurred by the Company relates to Yarrabubba Project metallurgical testwork, drilling, field expenses, legal, GVP environmental consultants, technical consultants, geological consultants and tenement administration & reporting.

Table 2: TMT Top 20 Holders report as at 25 October 2021

Position	Holder Name	Holding	% IC
1	RCF MANAGEMENT L.L.C <RESOURCE CAPITAL FUND VII L.P. (RCF VII)>	24,540,984	13.16%
2	BNP PARIBAS NOMS PTY LTD <UOB KH P/L AC UOB KH DRP>	16,128,239	8.65%
3	GREAT SOUTHERN FLOUR MILLS PTY LTD	14,000,000	7.51%
4	COLIN DAVID ILES	5,051,189	2.71%
5	STATION NOMINEES PTY LTD <STATION SUPER FUND A/C>	5,000,000	2.68%
6	RETZOS EXECUTIVE PTY LTD <RETZOS EXECUTIVE S/FUND A/C>	4,815,826	2.58%
7	ATASA HOLDINGS PTY LTD <TS3A FAMILY A/C>	4,282,506	2.30%
8	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	3,359,328	1.80%
9	BNP PARIBAS NOMINEES PTY LTD <IB AU NOMS RETAILCLIENT DRP>	2,193,162	1.18%
10	MR DAVID JAMES HARRINGTON	2,020,000	1.08%
11	MR RICHARD THOMAS HAYWARD DALY & MRS SARAH KAY DALY <DALY FAMILY S/F TOM A/C>	1,925,513	1.03%
12	CITICORP NOMINEES PTY LIMITED	1,914,830	1.03%
13	PERRIWINKLE INVESTMENTS PTY LTD	1,897,961	1.02%
14	RETZOS FAMILY PTY LTD <RETZOS FAMILY S/FUND A/C>	1,820,844	0.98%
15	MR PAUL VENDA DIVIN	1,798,827	0.96%
16	MR JACOB EDWARDS & MRS CATHY EDWARDS	1,702,671	0.91%
17	SHAYDEN NOMINEES PTY LTD	1,667,120	0.89%
18	UBS NOMINEES PTY LTD	1,473,415	0.79%
19	BNP PARIBAS NOMINEES PTY LTD SIX SIS LTD <DRP A/C>	1,403,270	0.75%
20	RONAY INVESTMENTS PTY LTD	1,373,480	0.74%
	Total	98,369,165	52.73%
	Total issued capital - selected security class(es)	186,535,071	100.00%

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 -

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, containing Gabanintha and Yarrabubba, 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 nine granted tenements and one application divided between the Gabanintha Vanadium Project (8 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.

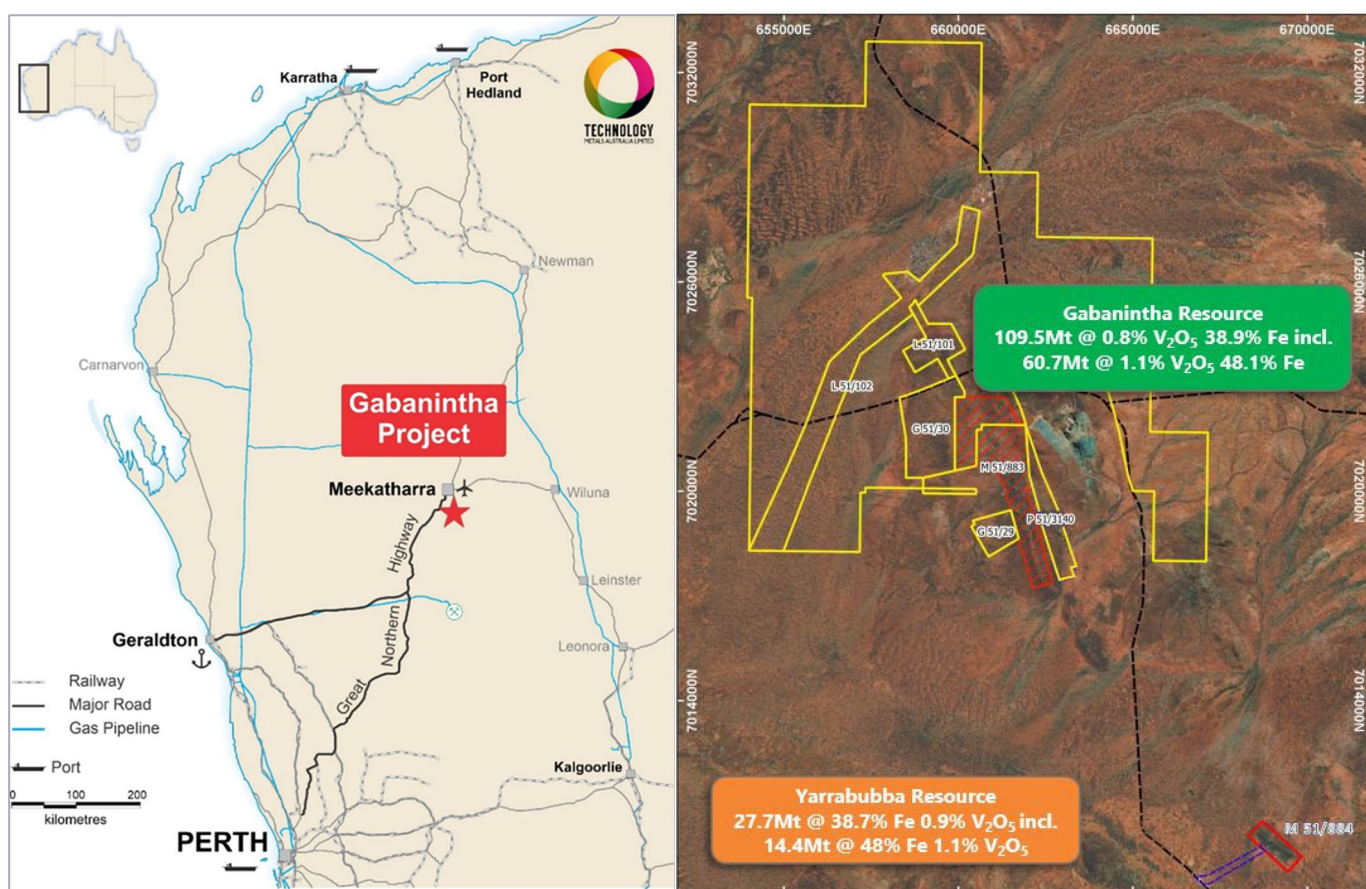


Figure 4: GVP and Yarrabubba Location and Tenure

Data from the Company's 2017 and 2018 drilling programs, including 111 RC holes and 53 HQ and PQ diamond holes at the Gabanintha Project and 31 RC holes and 4 PQ sized diamond holes completed in late 2018 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 Murchison Technology Metals Project as at 29 June 2020

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	44.7	6.2	10.4	11.4	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)	7.3	1.1	49.2	5.1	5.8	12.6	-0.6	0.004	0.3
	Total Indicated	25.8	1.1	49.1	5.1	5.8	12.8	-0.3	0.007	0.2
	Inferred (North)	41	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	7.1	1.1	46.9	5.6	7.4	12.1	0.5	0.005	0.3
	Total Inferred	48.1	1.1	47.6	5.6	7.2	12.5	0.3	0.008	0.2
	Massive Global	75.1	1.1	48.1	5.5	6.8	12.6	0.1	0.007	0.2
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3	0.03	0.2
	Indicated (South)	2.3	0.7	33.1	9.5	20.6	8.5	2.3	0.014	0.3
	Total Indicated	12.6	0.6	29.5	12.5	24.6	7.7	2.8	0.027	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	11	0.6	27.7	13	25.9	7	2.7	0.015	0.3
	Total Inferred	49.5	0.5	27.2	12.8	27.1	6.9	3.2	0.024	0.2
	Diss / Band Global	62.1	0.6	27.7	12.7	26.6	7.1	3.1	0.025	0.2
Combined	Global Combined	137.2	0.9	38.9	8.7	15.7	10.1	1.5	0.015	0.2
*Note: The Mineral Resources were estimated within constraining wireframe solids using a nominal 0.9% V ₂ O ₅ % lower cut-off grade for the massive magnetite zones and using a nominal 0.4% V ₂ O ₅ % 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% V ₂ O ₅ %. 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	186.5m
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)	6.313m
Class B Performance Rights ³	1.325m
Class C Performance Rights ⁴	1.325m

- Director and employee options – 3.875m vested on grant of the mining licences, 4.125 million vest on Gabanintha FID
- Employee options – 3.925million vest and subject to the Company making a final investment decision (FID) for the Yarrabubba Project prior to 30 October 2023 and 0.425 million vest subject to the Company achieving first commercial production from the Yarrabubba Project prior to 30 October 2023.
- 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 Yarrabubba Project prior to 30 October 2023.
- 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.

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 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 Yarrabubba project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan of METS Engineering Group Pty Ltd. 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")

30 September 2021

Consolidated 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	(230)	(230)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(141)	(141)
	(e) administration and corporate costs	(185)	(185)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	2	2
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)	235	235
1.9	Net cash from / (used in) operating activities	(319)	(319)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	(1,558)	(1,558)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated 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	(1,558)	(1,558)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities) ¹	-	-
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	-	-

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	5,586	5,586
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(319)	(319)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,558)	(1,558)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

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	Cash and cash equivalents at end of period	3,709	3,709

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	3,709	5,586
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)	3,709	5,586

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	97
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	-	-
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)	(319)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(1,558)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,877)
8.4	Cash and cash equivalents at quarter end (item 4.6)	3,709
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	3,709
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.98
	<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: Yes, as announced on 23 September, the Company initiated a \$20m Share Placement which was completed subsequent to the September quarter on 5 October 2021.	
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: Yes, Refer 8.8.1	

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

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: Yes, Refer 8.8.1

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

Compliance statement

- 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:28/10/21.....

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.