

23 August 2023

Update on Speewah Project

The Board of Tivan Limited (ASX: TVN) (“Tivan” or the “Company”) is pleased to provide an update on its development strategy for the Speewah Vanadium-Titanium-Iron Project (“Speewah” or “Project”) in Western Australia, following the introduction of the “Project FastTrack” initiative by the Company’s Executive Chairman Mr Grant Wilson during the half-year update to shareholders on 13 July 2023.

Speewah Project Overview

The Speewah Project is located 100 km south of the port of Wyndham, and 110 km south-west of Kununurra, in the Kimberley region of north-east Western Australia. Speewah hosts the largest reported vanadium in titanomagnetite resources in Australia, and one of the largest globally, containing JORC compliant Measured, Indicated and Inferred Resources of 4.7 billion tonnes at 0.30% V₂O₅, 14.7% Fe and 3.3% TiO₂ (0.23% V₂O₅ cut-off grade) (refer to the attached Speewah Project Mineral Resource table in Appendix 2). Beneficiation testwork undertaken by former project owner King River Resources (“KRR”) on Speewah ore to produce magnetite concentrates confirmed that the vanadium grades in concentrates are some of the highest returned from any titanomagnetite resource globally.

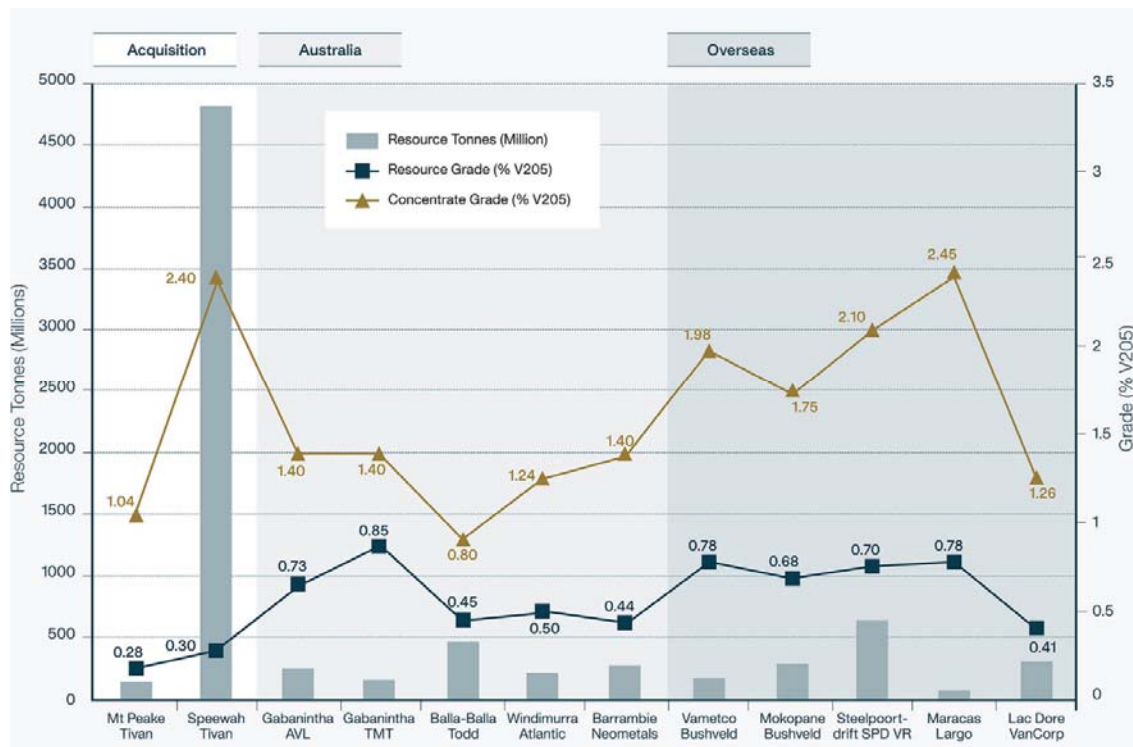


Figure 1: Vanadium Resource Peer Comparison

Figure 1 has been prepared in accordance with ASX Compliance Update, 19 September 2018, Update no 08/18, Section 3: Peer Comparison information. The full dataset with relevant sources and notes is included in Appendix 1.

Speewah ore is considered amenable to processing with the Company's TIVAN® mineral processing technology.

Tivan completed acquisition of the Speewah Project from KRR in April 2023.

Development Strategy

The vision for the Company is to develop vanadiferous titanomagnetite ("VTM") projects including Speewah through the commercialisation of the evolved mineral processing technology, "TIVAN+". The Company is engaging in an ongoing collaboration with Australia's national science agency, CSIRO, on the TIVAN+ technology pathway and project facilitation in this regard. This collaboration brings together the parties' extensive processing knowledge and intellectual property, including in respect of VTM ores from Mount Peake and Speewah, with the objective of developing an optimal VTM processing technology pathway for a large-scale and long-life project.

In parallel, the Company has undertaken an extensive internal evaluation of synergistic project development options that offer expedited timeframes, referred to as "Project FastTrack" in the half-year update to shareholders. The aim of this initiative was to identify and evaluate project development options that:

- Offer faster timeframes to project commercialisation and first revenue.
- Take advantage of Speewah's superior characteristics including proximity to port, low strip ratio, high concentrate grade and large resource size.
- Utilise a known technology pathway that has been implemented and operated at an industrial scale.
- Achieve synergistic project facilitation steps that are also required for a TIVAN+ project development.
- Introduce offtake and project finance partners that will also support a TIVAN+ project development.
- Develop mining and beneficiation operations consistent with a TIVAN+ project development.

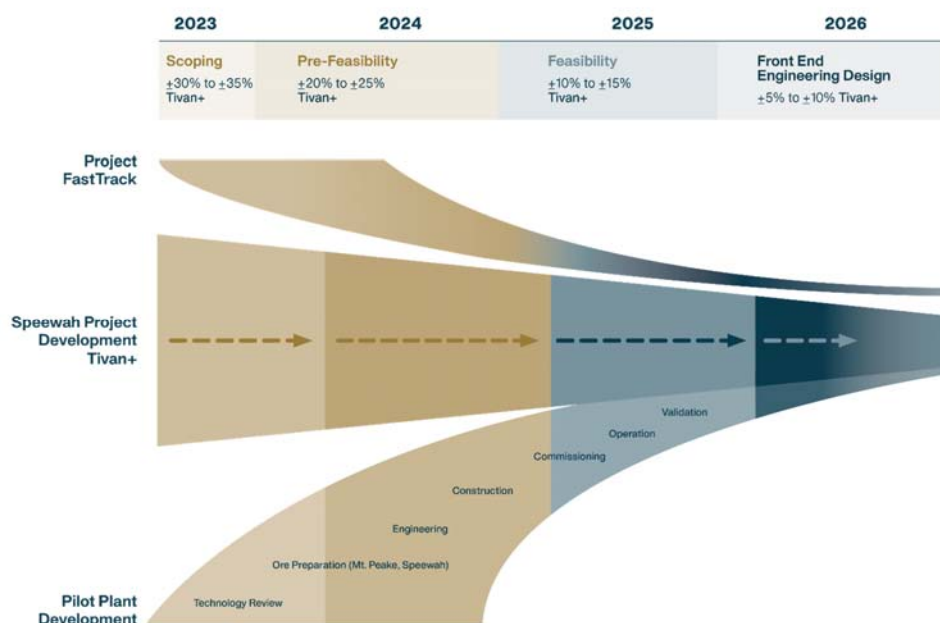


Figure 2: Current Speewah Project Roadmap

Project FastTrack Evaluation

As part of the FastTrack initiative, Tivan's Project Team has undertaken extensive evaluations of alternative project options, including a comprehensive review of alternative vanadium processing technologies and products. A salt roast process route was identified early in the evaluation as a preferred alternative project option.

Key aspects of the evaluation included:

- Review of historical testwork data on the beneficiation of Speewah ore.
- Review of historical testwork data on salt roasting of Speewah concentrate.
- Review of potential products including direct shipped ore (DSO), concentrate, vanadium oxide and ferrovandium.
- Comparison of existing and developing salt roast projects in Australia and overseas.
- Preparation of an initial high-level flowsheet.
- Assessment of Speewah salt roast project development concepts and costings.
- Assessment of preferred locations for processing operations in the East Kimberley region.
- Assessment of potential commercialisation parameters for project development.

The internal evaluation delivered the following key findings:

- Speewah ore is considered amenable to salt roast processing, which is supported by previous testwork undertaken by KRR, including the recently completed extensive testwork program with Murdoch University.
- Speewah ore has potential to produce a high purity (99.5%) vanadium pentoxide flake product.
- A salt roast project for Speewah using existing processing technology can reach production in materially shorter timeframes than a TIVAN+ pathway.
- The preferred product for a salt roast project is vanadium pentoxide flake, with ferrovandium an additional value-added option. The least preferred product was found to be DSO, followed by concentrate.
- The preferred location for the project is the Speewah site, with integrated mining, beneficiation and salt roast processing operations. The Port of Wyndham was extensively evaluated as an alternative processing site. The Argyle Diamond Mine site, recently decommissioned by Rio Tinto, was also considered.

The internal evaluation and key findings were presented to Tivan's Technical Advisory Group, which was established to provide independent technical advice on the facilitation of the Company's vanadiferous titanomagnetite projects (refer to ASX announcements of 26 May and 31 May 2023). Following extensive participation and review, the Technical Advisory Group endorsed the Project's Team key findings from the evaluation.

On this basis, the Board of Tivan has resolved to progress a salt roast project at Speewah. Henceforth, and to aid clarity in communications, Tivan will refer to this as the 'Speewah Project'.

The development of the TIVAN+ pathway, and the processing facility planned for the Middle Arm Sustainable Development Precinct in Darwin, remains the longer term vision of the Board. The Board views the Speewah Project as strongly facilitative of the TIVAN+ pathway, and the optimal approach of commencing commercialisation of the Speewah resource.

Facilitation Steps

In support of the internal evaluation, Tivan has commenced a comprehensive process to identify and advance key facilitation requirements for the Speewah Project. This includes:

- Extensive engagement with the Kimberly Land Council (“KLC”) since February and the commencement of a formal dialogue with the KLC regarding planned conversion of exploration to mining leases at Speewah.
- Early, genuine and ongoing engagement with Traditional Owners in the Speewah area and in the nearby towns of Kununurra and Wyndham.
- Signing of a Heads of Agreement (“HoA”) with Cambridge Gulf Limited (“CGL”), the operator of the Wyndham Port, to collaborate on opportunities to support the Speewah Project (refer to ASX announcement of 13 July 2023); including a day long workshop held on project facilitation last week in Kununurra.
- Extensive and ongoing engagement with Federal and WA Governments on project approvals and facilitation pathways.
- Multiple site visits by the Tivan’s Executive Chairman, Project Team and Chief Geologist to Speewah, Wyndham and Kununurra, in support of:
 - Assessment of non-process infrastructure requirements; included assessment of existing regional non-process infrastructure opportunities.
 - Environmental baseline studies to support future EIS submission.
 - Site layout planning including resource review and tailings management concept study.
- Completion of Mineralisation Report and supporting statement of operations to progress planned conversion of exploration leases into mining leases.

As previously announced, the Company has also initiated a desktop and site-based works program to facilitate the environmental approvals process for the Speewah Project, which will support both the salt roast and TIVAN+ technology pathways (refer to ASX announcement of 20 July 2023). Tivan has additionally commissioned a number of desktop environmental assessments with specialised consultants including for terrestrial biology, hydrology, hydrogeology, subterranean fauna and short-range endemics.

A two-season, comprehensive biological survey is also required for the Speewah Project site. Animal Plant Mineral has been engaged to conduct these site-based surveys, with the dry season biological field survey commencing in early August 2023, and the wet season provisionally scheduled for April 2024. Hydrology consultants AQ2 have also undertaken a site visit to Speewah for their study.

In support of the commercial strategy for the Speewah Project, Tivan’s Executive Chairman Mr Grant Wilson departs later today for an extensive travel itinerary in Japan, that includes meetings with prominent industrial and trading companies in Tokyo and Osaka, and Japanese public financial institutions. This follows various meetings in Australia with locally domiciled Japanese counterparties since the start of the year. Mr Wilson’s visit to Japan has been supported by the Federal government and the governments of the Northern Territory and Western Australia.

Speewah Project - Next Steps

Next steps to be progressed for the Speewah Project include:

- Appointment of engineering contractors to lead the engineering and study program.
- Formalising baseline production targets including ore throughput and product outputs.
- Advancing a pre-feasibility study.
- Updating the project development roadmap and schedule, with timeframes expected to be announced in conjunction with Tivan's AGM.
- Continued advancement of Tivan's firmwide policy of genuine and early inclusion of First Nations peoples, and continued progression of tenure and land use at Speewah.
- Continued progression of the environmental work program at Speewah.
- Continued stakeholder engagement in the East Kimberley region, and with the Federal and WA governments.
- Ongoing advancement of project facilitation, including through the introduction of commercial partners and investors in Australia and overseas.

The Board reaffirms that the workstreams for the Speewah Project, including mining, beneficiation, non-process infrastructure and approvals, are shared with the TIVAN+ pathway, thereby providing extensive synergies and optionality. The Board reaffirms that it views the Speewah Project as the fastest available route to first revenue, and the surest path for Tivan to achieve a durable and significant re-rating of market capitalisation.

Comment from Executive Chairman

Mr Grant Wilson commented:

"I am pleased to provide this extensive update to shareholders ahead of important travel to Japan. The progress that Tivan has made since acquiring Speewah is rapid and substantive and continues apace across multiple portfolios, workstreams and locations.

Importantly, I am confident that the Speewah Project, introduced formally today, is commercially viable. This is a hard-won finding, and is based on the Speewah Project satisfying three key criteria:

- a) Capable of generating a commercial return that is sufficient to facilitate project finance;*
- b) Based on a technology pathway that is amenable to the award of relevant process guarantees; and*
- c) Appropriate in scale to attract Tier 1 EPC/EPCM contractors that have sufficient balance sheet strength to facilitate project finance.*

Tivan will continue to forge ahead rapidly, with significant announcements expected all the way through to the AGM. Within a year, shareholders will have witnessed one of the most comprehensive transformations in Australian corporate history and will stand to participate in a generational opportunity."



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asx announcement

This announcement has been approved by the Board of the Company.

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Appendix 1 – Hard Rock Vanadium Peer Comparison Table



Acquisition		Australia		Overseas						
Company	Code	Deposit	Location	Stage	Resource Category	Resource (Mt)	Resource Grade (V2O5%)	Total Resource (Mt V2O5%)	Concentrate Grade	Sources and Notes
Tivan	ASX: TVN	Mount Peake	NT	Development	Measured	118.0	0.29	160Mt @ 0.28% (Cutoff V2O5% 0.10%)	1.04	ASX announcement 24 January 2023 Quarterly Activities Report, TNG investor presentation https://tivan.com.au/wp-content/uploads/2023/02/61132915-1.pdf https://www.asx.com.au/asxpdf/20190604/pdf/445lqv6lxy90gf.pdf
					Indicated	20.0	0.28			
					Inferred	22.0	0.22			
KRR	ASX: KRR	Speewah	WA	Development	Measured	322.0	0.33	4712Mt @ 0.30% (Cutoff V2O5% 0.23%)	2.40	ASX announcement 1 April 2019, 10 May 2022, 22 September 2022 https://app.sharelinktechnologies.com/announcement/asx/4fd202b184aafb93bc7350413f16d283 https://app.sharelinktechnologies.com/announcement/asx/5f6090d1a01816a20d24a633a15ecb20 https://app.sharelinktechnologies.com/announcement/asx/41ad6aa2b6c9b0c09cb45d6b2046327d
					Indicated	1,054.0	0.30			
					Inferred	3,335.0	0.29			
AVL	ASX: AVL	Gabanintha	WA	Development	Measured	11.3	1.14	239Mt @ 0.73% (various cutoffs)	1.40	ASX announcement 6 April 2022 Bankable Feasibility Study. 73.6Mt of the Indicated and 88.5Mt of the Inferred tonnes use 0.40% V2O5 cutoff. All other tonnages (95.6Mt) are at 0.70% V2O5 cutoff.
					Indicated	82.4	0.70			
					Inferred	145.3	0.71			
TMT	ASX: TMT	Gabanintha	WA	Development	Measured	12.1	1.00	154Mt @ 0.85% (Cutoff V2O5% 0.40%)	1.40	ASX announcement 23 November 2022 RUI Resurgence Conference 23 November 2022
					Indicated	51.2	0.90			
					Inferred	90.5	0.80			
Todd Resources	Private	Balla Balla	WA	Development	Measured	219.0	0.64	456Mt @ 0.64% (Cutoff V2O5% 0.30%)	0.80	Integrated feasibility study December 2009. ASX disclosure 16 December 2011. https://www.asx.com.au/asxpdf/20111216/pdf/4239v45c02k79t.pdf https://drive.google.com/file/d/1wGS4cibLxmYmTnnltz39T_n5uoU1WOLH/view
					Indicated	86.7	0.63			
					Inferred	150.2	0.64			
Atlantic	Private	Windimurra	WA	Development	Measured	34.6	0.49	210Mt @ 0.50% (Cutoff V2O5% 0.28%)	1.24	2019 Mineral Resource Estimate https://atlanticptyltd.com.au/projects/windimurra/geology-reserves-resources
					Indicated	123.5	0.50			
					Inferred	51.6	0.50			
Neometals	ASX: NMT	Barambie	WA	Development	Measured	n/a	n/a	280Mt @ 0.44% (Cutoff V2O5% 0.20%)	1.40	ASX announcement 17 April 2018 Updated Barambie Mineral Resource Estimate https://wcsecure.weblink.com.au/pdf/NMT/01971759.pdf
					Indicated	187.0	0.46			
					Inferred	93.0	0.40			
Bushveld	LSE: BMN	Vametco	South Africa	Production	Measured	n/a	n/a	183Mt @ 0.78% (Cutoff = 0.20% magnetite)	1.98	Vametco Inferred & Indicated Mineral Resource and Ore Reserve Update for Annual Reporting https://www.bushveldminerals.com/wp-content/uploads/2022/04/J4590-Vametco-Mineral-Resources-and-Ore-Reserves-31-December-2021-Dated-30-Mar-2022.pdf
					Indicated	140.1	0.74			
					Inferred	42.6	0.90			
Bushveld	LSE: BMN	Mokopane	South Africa	Development	Measured	n/a	n/a	297Mt @ 0.68% (Cutoff V2O5 = 0.30%)	1.75	Mokopane Vanadium project Pre-Feasibility Study 30/1/2016 http://bushveldminerals.com/wp-content/uploads/2017/08/201602040458050.pdf
					Indicated	63.2	1.32			
					Inferred	234.0	0.51			
SPD VR	ASX: VR8	Steelpoortdrift	South Africa	Development	Measured	145.5	0.72	680Mt @ 0.70% (Cutoff V2O5 = 0.45%)	2.10	ASX announcement 17 November 2022. Investor Presentation May 2022. https://vr8.global/sites/default/files/2022%2005%2009%20Vanadium%20Resources%20Investor%20Presentation%20.pdf
					Indicated	327.3	0.70			
					Inferred	207.4	0.68			
Largo Resources	NASD: LGO TSX: LGO	Maracas	Brazil	Production	Measured	45.9	0.83	79Mt @ 0.78% (Cutoff V2O5 = 0.30%)	2.45	43-101 Technical Report 10 October 2021 https://s29.q4cdn.com/562286712/files/doc_downloads/technical_report/marac%20C3%A1s_menchen_mine/TR_GE21_Largo_43101_16122021_Final-Version-Conformed-for-Filing.pdf
					Indicated	17.7	0.70			
					Inferred	15.5	0.74			
Lac Dore	TSX: VRB	VanCorp	Canada	Development	Measured	24.0	0.50	304.9Mt @ 0.41% (Cutoff V2O5 = 0.30%)	1.26	Lac Dore Mineral Resource Estimate 29 October 2020 https://www.vanadiumcorp.com/releases/vanadiumcorp-reports-the-lac-dore-mineral-resource-estimate-mre-2/
					Indicated	191.0	0.40			
					Inferred	89.9	0.40			

Appendix 2 - Speewah Project Mineral Resources

Mineral Resource

In 2010, Runge Ltd reported a Mineral Resource estimate for the Speewah vanadium deposit in accordance with JORC 2004. In 2012 this estimate was updated by Runge Ltd again in accordance with JORC 2004. In 2017, KRR engaged mining industry consultants CSA Global Pty Ltd ("CSA") to complete an updated resource estimate for the Speewah Project, consistent with the JORC Code 2012 (refer to KRR ASX announcement of 26 May 2017). In 2019, CSA further updated the resource estimate to include the reporting of the TiO₂ grade (refer to KRR ASX announcement of 1 April 2019), which is shown in the table below.

Speewah project Global Mineral Resource estimate (0.23% V₂O₅ cut-off grade)

Zone	JORC Classification	Tonnage (Mt)	V (%)	V ₂ O ₅ %	Fe (%)	Ti (%)	TiO ₂ %
High Grade	Measured	181	0.21	0.37	15.1	2.1	3.5
	Indicated	404	0.20	0.35	15.0	2.0	3.4
	Inferred	1,139	0.19	0.34	14.9	2.0	3.4
Total High Grade		1,725	0.20	0.35	15.0	2.0	3.4
Low Grade	Measured	141	0.15	0.27	14.6	2.0	3.3
	Indicated	650	0.15	0.27	14.5	1.9	3.2
	Inferred	2,196	0.15	0.27	14.4	1.9	3.2
Total Low Grade		2,987	0.15	0.27	14.5	1.9	3.2
Combined Zones	Measured	322	0.18	0.32	14.9	2.0	3.4
	Indicated	1,054	0.18	0.33	14.9	2.0	3.3
	Inferred	3,335	0.16	0.29	14.6	2.0	3.3
Grand Total		4,712	0.17	0.30	14.7	2.0	3.3

* Due to the effects of rounding, the total may not represent the sum of all components

* V₂O₅ calculated as V x 1.785

* TiO₂ calculated as Ti x 1.668

Source: CSA Global

Ore Reserve

No ore reserve has been reported by KRR. Tivan will complete appropriate level of study to report an ore reserve.

Competent Person's Statements

The information in this announcement related to the Speewah Mineral Resource estimate is extracted from an ASX announcement of King River Resources Limited (ASX: KRR) entitled "Vanadium Resource Amendment" dated 1 April 2019 and is available to view on www.kingriverresources.com.au and www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in the KRR ASX announcement "Vanadium Resource Amendment" dated 1 April 2019 on pages 1 to 4 is based on information compiled by Ken Rogers (BSc Hons) and fairly represents this information. Mr. Rogers is the Chief Geologist and an employee of King River Resources Ltd, and a member of both the Australian Institute of Geoscientists (AIG) and The Institute of Materials Minerals and Mining (IMMM), and a Chartered Engineer of the IMMM. Mr. Rogers has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Rogers consents to the inclusion of the information in the KRR announcement "Vanadium Resource Amendment" dated 1 April 2019 on pages 1 to 4 of the matters based on information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

Forward looking statement

This announcement may contain certain 'forward looking statements' which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. The words "expect", "anticipate", "estimate", "intend", "believe", "guidance", "should", "could", "may", "will", "predict", "plan" and other similar expressions may identify forward-looking statements. Indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements.

Forward-looking statements, opinions and estimates contained in this announcement include, but are not limited to the strengths, characteristics and potential of the Company; and discussion of future plans, projects and objectives. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions, and other factors which are beyond the control of the Company, which could cause actual results to differ materially from future results expressed, projected, or implied by such forward looking statements. Such risks include, but are not limited to third party actions, metals price volatility, failure to complete the transaction, currency fluctuations and variances in exploration results or other factors, as well as political and operational risks, and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other releases.

Forward-looking statements are provided as a general guide only and should not be relied on as an indication or guarantee of future performance.

No representation or warranty, express or implied, is made as to the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters contained in this announcement. Actual results, performance or achievements may differ materially from those expressed or implied in such statements and any projections and assumptions on which these statements are based.

Readers are cautioned not to place undue reliance on forward-looking statements and, except as required by law, the Company, its directors, officers, agents, employees and advisers do not undertake any obligation to release publicly any update or revision to any 'forward looking statement' to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events.