

SCOPING STUDY ADVANCING TOWARDS COMPLETION

HIGHLIGHTS

- ◆ **Metallurgical testwork recommences following lifting of COVID-19 lockdowns in South Africa**
- ◆ **Scoping study to produce a high purity vanadium pentoxide (V₂O₅) flake from Steelpoortdrift rescheduled for Q3 completion**
- ◆ **Open pit optimisations and mining schedules well advanced**
- ◆ **Owing to project production metrics, VR8 seeks to be the lowest capex and opex global producer**

The management of Vanadium Resources Limited (ASX:VR8) (**VR8** or **the Company**) is pleased to provide an update on the Company's current activities to develop the Steelpoortdrift Vanadium Project in South Africa.

METALLURGICAL TESTWORK RECOMMENCES

Metallurgical testwork has recommenced with the lifting of COVID-19 related lockdowns in South Africa. The testwork program is using the established salt roasting process and is being carried out at Mintek South Africa, an internationally accredited mineral processing laboratory with significant experience in processing and extraction of vanadium. Testwork aims to confirm that the processing of Steelpoortdrift mineralisation extracts vanadium salts under standard operating conditions and at recoveries analogous to other vanadium producers within the Bushveld Complex, as well as seeking to optimise recovery and costs by making use of modern refining roasting / leaching conditions and reagent consumption methods. Samples for testwork have been prepared by compositing drill samples of mineralised zones at the SPD Project collected in the 2018 and 2019 programmes.

SCOPING STUDY UPDATE

The scoping study investigates the viability of producing high purity (+ 98%) V₂O₅ flake from the Steelpoortdrift Vanadium Project and is being led by Mr. Les Ford. Mr Ford is regarded as one of the world's foremost experts in the production of vanadium based on over 40 years of experience constructing, developing and producing vanadium projects in South Africa and Brazil. Mr Ford began his career at Highveld Steel and Vanadium's Vantra plant that used material from a similar geological setting to that of Steelpoortdrift at its operations in Witbank in South Africa. Later in his career Mr Ford was responsible, for the development and construction of producing vanadium mines for Largo Resources in Brazil and for Vantech (formerly Xstrata, now Glencore). He was also intimately involved with the redesign of the Windimurra Vanadium plant in Australia and of Glencore's Vantech and Rhovan operations in South Africa.

Work to complete the scoping study is progressing rapidly with initial open pit optimisations and mining schedules completed by internationally respected consultants Mining Plus and initial capex and opex figures determined by Company consultants, as directed and supported by Mr Ford. Final optimisations and costings, and further refinements, are to be carried out during June and will be incorporated into the study for publication once received. Metallurgical testwork results are now scheduled to be received in mid-July and scoping study results, which were delayed as a result of the lockdowns imposed by the South African government, are expected to be completed and announced by mid-August.

Results from the scoping study is anticipated to demonstrate both the cost-competitive advantage and the viability of producing a high purity V₂O₅ flake product from Steelpoortdrift. It is expected that the high grade nature of the project, its location within a world renowned mining hub with key infrastructure and local experience in building and maintaining vanadium plants will significantly reduce unit operating costs

and capital requirements, thereby ensuring the project is globally competitive. The project enjoys a number of cost advantages of operating in South Africa arising from access to regional infrastructure, established suppliers and service industries such as fabrication. The prevailing exchange rate of the South African Rand, which is not expected to improve beyond levels experienced before the Covid-19 Pandemic, is providing an additional cost advantage for the project.

The Company had previously completed a scoping study to determine the viability of selling a concentrate product from Steelpoortdrift (refer ASX Announcement 2 May 2019) before commencing with studies to produce high purity V_2O_5 flake from the concentrate. The concentrate scoping study was prepared at prevailing prices of 98% V_2O_5 ranging between \$11 and 22/lb (Dec 2018 to May 2019; source: Fastmarkets Metal Bulletin) at a time when the resultant price offered for the Company's high quality vanadium concentrate was at a level sufficient to sustain a profitable DSO operation. However, a rapid drop in V_2O_5 prices temporarily altered the market dynamics for concentrate, which consequently suspended the fixing of potential pricing arrangements that was to underpin a startup concentrate operation. As result of the delay, the Company continued with a scoping study to produce high purity V_2O_5 flake.

Last month 98% V_2O_5 flake product traded between US\$6.10 – US\$6.30/lb (US\$13,450 – 13,900/tonne; Fastmarkets Metal Bulletin) and has risen during the course of last week to \$6.50-\$7.00/lb (US\$14,330 – US\$15,430/tonne; Fastmarkets Metal Bulletin) which improves the economics of supplying concentrate.

OFFTAKE AND MARKETING

A 98% V_2O_5 flake product is the most commonly traded vanadium product globally, with the flexibility to be converted into ferrovandium, which is used directly in steelmaking, or to be further purified for high performance alloys, chemical uses and for conversion into vanadium electrolyte for use in vanadium redox flow batteries (VRFBs).

While the Scoping Study advances, the Company continues to engage with multiple parties interested in investment in the Steelpoortdrift Vanadium Project. A number of these parties commenced their engagement following the completion of the previous Scoping Study and have stated their preference for either a 98% or high purity V_2O_5 flake product or a concentrate product that can be transported or shipped to suitable processing facilities respectively located in South Africa and in China. It is also anticipated that production of a high purity V_2O_5 flake product will attract a greater range of end users interested in financial or trading agreements relating to the offtake from the project due to the wider usage of this product in the vanadium industry.

SECTION 11 APPLICATION PROGRESSED

The Company has completed the application to obtain the required consent under section 11 of the MPRDA to finalise and conclude its acquisition of a further 23.95% interest in the Steelpoortdrift Vanadium Project, thereby bringing the Company's total equity interest to 73.95%. In terms of section 11 a change of control agreed to between the holder of a license and the new owner cannot occur until ministerial approval has been granted. To comply with this requirement, the acquisition of the control portion of the acquisition has been delayed until ministerial approval is obtained. With the COVID-19 pandemic affecting government processes the timing of this consent is not certain. In the opinion of the board, no reason exists for ministerial approval to be refused. Regardless of its current holding, VR8's funding of total project costs is carried through loan agreements with the project holding company, Vanadium Resources (Pty) Ltd, which company will fully repay such loans from initial revenues generated by the Project.

This announcement has been authorised for release by the directors of Vanadium Resources Ltd.

For and on behalf of the board:

Kyla Garic

Company Secretary

BACKGROUND ON VANADIUM

Current day demand for vanadium arises from its established use in strengthening steel via various alloys. Consumption is currently increasing with the recent implementation of stricter standards on the strength of steel to be used in construction (specifically rebar). The use of vanadium in steel making accounts for over 90% of current vanadium demand in today's market.

The most commonly traded vanadium product is 98% V_2O_5 flake as it can be used directly in steel making or converted to ferrovanadium for additional uses in steel making. Higher purity vanadium products either are produced by a modern plant (such as being planned by VR8) or are further processed from 98% V_2O_5 flake for speciality uses in chemical industries, energy storage and high performance alloying technologies

Such speciality uses are expected to provide additional longer term demand for vanadium. Vanadium redox flow battery (VRFB) technology was developed in Australia and has a number of advantages in industrial and small town sized energy storage requirements. The global move towards renewable energy solutions will require a vast increase in energy storage installations, which in turn is forecast to result in an increase in the amount of VRFBs being manufactured and installed around the world.

Another emerging use of vanadium is in high-performance light weight alloys. Supply of such alloys is increasing in the aerospace industry, with aeroplanes such as the Boeing Dreamliner 787 and the Airbus A350 now incorporating up to 100 tons of vanadium per aircraft.

BACKGROUND ON THE STEELPOORTDRIFT VANADIUM PROJECT

The Steelpoortdrift titaniferous magnetite deposit is located in the prolific Bushveld Geological Complex surrounded by known mineral and vanadium production facilities within reach of proven processing plants, railway and road options and ports.

The Steelpoortdrift Vanadium project is licensed with a mining right and the Company is in the process of conducting work towards becoming fully permitted (such as acquiring a water use license) for production and towards studies to verify a pathway of options to produce high purity V_2O_5 flake and other niche products from the suite of elements present in the Titano-magnetite (V, Ti and Fe). The current Scoping Study aims to demonstrate the viability of producing high purity V_2O_5 flake from the Project.

The Steelpoortdrift Vanadium Project compares highly favourably to other vanadium deposits globally, as **the largest published global undeveloped Mineral Resource** (662 million tonnes at an in situ grade of 0.77% V_2O_5 , defined above an in-situ grade of 0.45% V_2O_5), as well as **the largest published high grade undeveloped resource** (188 million tonnes at an in situ grade of 1.23% V_2O_5 , defined above an in situ resource grade of 1% V_2O_5 Figure 2, Appendix 2). A sizeable portion of this high grade resource (68Mt at 1.37% V_2O_5 , Appendix 2) is hosted in a discrete, massive magnetite unit which outcrops along 4km of strike within the project area.

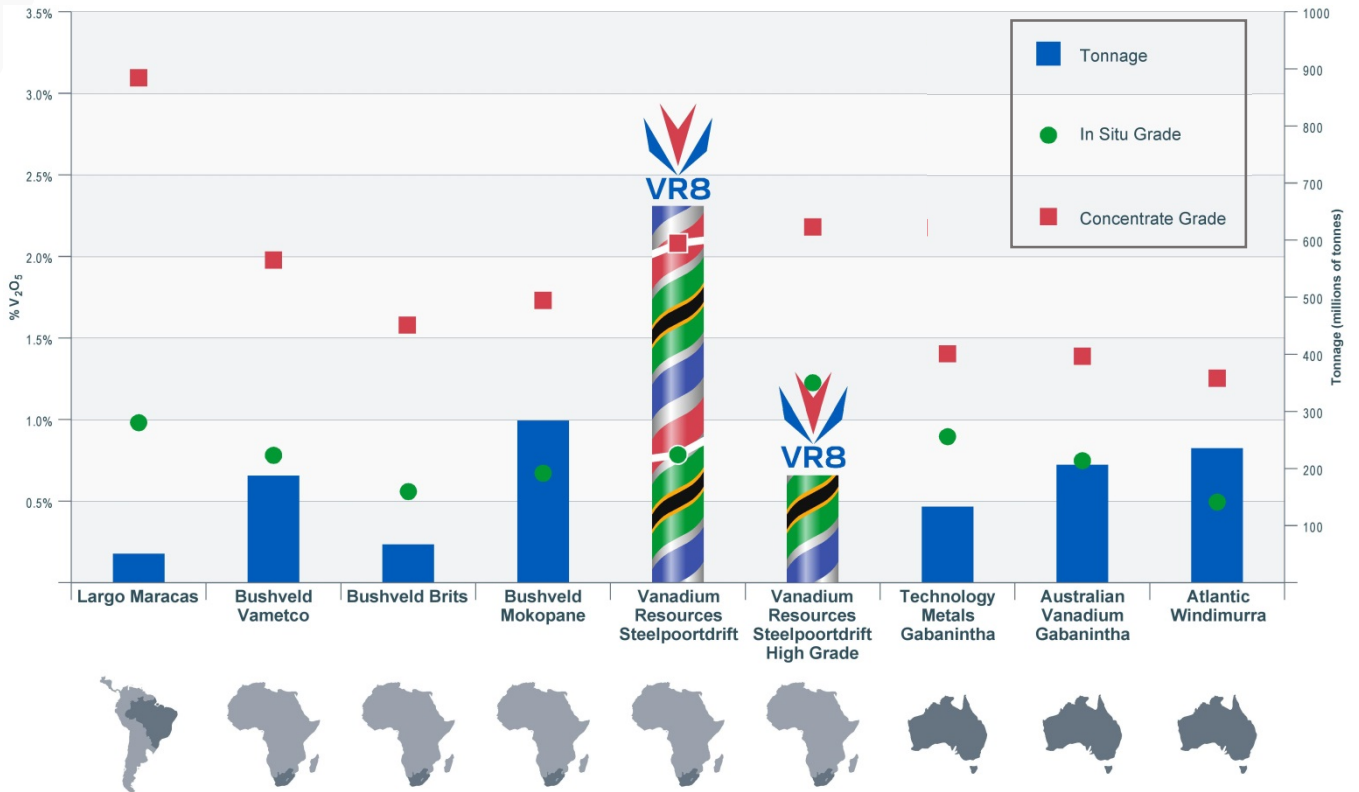


Figure 2. Global vanadium projects categorised by resource grade and grade in concentrate.

Chart compares resources reported under different codes and companies at different stages of development as detailed in Appendix 1. Only resources with a quoted in situ grade > 0.45% V₂O₅ are shown in figure.

APPENDIX 1: Data and sources for Peer Comparison (Figure 2)

Company	Project	Stage	Resource Category	Resource Tonnes	Resource Grade	Concentrate Grade	Information Source
Largo LGO.TSX	Maracas	Production	Measured, Indicated & Inferred (43-101)	49.25	0.99	3.10	43-101 Technical Report dated 26/10/2017 http://www.largoresources.com/operations/maracas-menchen-mine
Bushveld BMN.LSE	Vametco	Production	Indicated & Inferred	186	0.78	1.98	Competent Persons' Report on the Vametco Vanadium Mine Jan 2020 https://www.bushveldminerals.com/technical-reports/
	Brits	Development	Indicated & Inferred	66.8	0.56	1.58	Competent Persons' Report on the Brits Vanadium Project Jan 2020 https://www.bushveldminerals.com/technical-reports/
	Mokopane	Development	Indicated & Inferred	285	0.68	1.75	Mokopane PFS Study Report Jan 2016 https://www.bushveldminerals.com/technical-reports/
TNG TNG.ASX	Mt Peake	Development	Measured, Indicated & Inferred	160	0.28	1.20	ASX Announcement 26/03/2013
King River KRR.ASX	Speewah	Development	Measured, Indicated & Inferred	4,712	0.30	2.11	ASX Announcement 01/04/2019 06/11/2019
Pursuit Minerals PUR.ASX	Koitelainen Vosa	Development	Inferred	116.4	0.11	2.25	ASX Announcement 06/02/2019
	Airijoki	Development	Inferred	44.3	0.23	1.70	ASX Announcement 08/03/2019
Australian Vanadium AVL.ASX	Gabanintha	Development	Measured, Indicated & Inferred	208.2	0.74	1.39	ASX Announcement 04/03/2020, 17/03/2020
Technology Metals TMT.ASX	Gabaninth	Development	Indicated & Inferred	131	0.90	1.36	ASX Announcement 29/03/2019

APPENDIX 2: Mineral Resource Statement for the Steelpoortdrift Vanadium Project

Table 1. Steelpoortdrift Vanadium Project Global Mineral Resource by Resource Category.

Category	V ₂ O ₅ Cutoff	SG	Tonnes (Mt)	Whole Rock V ₂ O ₅ %	Tonnes V ₂ O ₅ in magnetite (kt)
Measured	0.45%	3.35	92	0.77	711
Indicated	0.45%	3.37	284	0.78	2,219
Inferred	0.45%	3.38	285	0.77	2,197
Total			662	0.77	5,098

Table 2. Steelpoortdrift Vanadium Project Mineral Resource by Zone (Measured, Indicated & Inferred).

Layer	V ₂ O ₅ Cutoff	SG	Tonnes (Mt)	Whole Rock V ₂ O ₅ %	Tonnes V ₂ O ₅ in magnetite (kt)
Upper Zone	0.45%	3.40	244	0.75	1,830
Intermediate Zone	0.45%	3.23	158	0.57	898
Lower Zone (all)	0.45%	3.43	260	0.94	2,414
Lower Zone (LM1A only)	0.45%	3.73	68	1.37	928
Total			662	0.77	5,098

Table 3. Steelpoortdrift Vanadium Project Mineral Resource by Grade

V ₂ O ₅ Range	Category	SG	Tonnes (Mt)	Whole Rock V ₂ O ₅ %	Tonnes V ₂ O ₅ in magnetite (kt)
> 0.90%	Measured	3.65	26	1.22	321
> 0.90%	Indicated	3.67	83	1.24	1,032
> 0.90%	Inferred	3.67	78	1.22	957
Sub Total	> 0.90%		188	1.23	2,309
0.45% - 0.90%	Measured	3.25	66	0.59	389
0.45% - 0.90%	Indicated	3.26	201	0.59	1,187
0.45% - 0.90%	Inferred	3.28	207	0.60	1,241
Sub Total	0.45% - 0.90%		474	0.59	2,818
Total			662	0.78	5,098

Table 4. *Steelpoortdrift Vanadium Project Mineral Resource within 100m of surface by Grade*

V ₂ O ₅ Range	Category	SG	Tonnes (Mt)	Whole Rock V ₂ O ₅ %	Tonnes V ₂ O ₅ in magnetite (kt)
> 0.90%	Measured	3.65	22	1.22	268
> 0.90%	Indicated	3.66	53	1.19	635
> 0.90%	Inferred	3.67	52	1.19	614
Sub Total	> 0.90%		127	1.20	1,518
0.45% - 0.90%	Measured	3.25	60	0.59	353
0.45% - 0.90%	Indicated	3.26	159	0.60	953
0.45% - 0.90%	Inferred	3.29	113	0.60	677
Sub Total	0.45% - 0.90%		332	0.60	1,984
Total			459	0.76	3,486

These tables should be read in conjunction with the notes and supporting information detailed in the ASX Announcement of 29 April 2020. The Company confirms that all material assumptions and parameters underpinning the Mineral Resource Estimates and the Production Targets reported in the market announcements dated 2 May 2019 and 29 April 2020 continue to apply and have not materially changed, and that it is not aware of any new information or data that materially affects the information that has been included in this announcement.

Competent Persons Statement

The information in this announcement that relates to Mineral Resources, including the Mineral Resources contained within the Production Target, complies with the **JORC Code** and has been compiled, assessed and created by Mr Kerry Griffin BSc.(Geology), Dip Eng Geol., a Member of the Australian Institute of Geoscientists and a Principal Consultant at Mining Plus Pty Ltd, consultants to the Company. Mr Griffin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Griffin is the competent person for the resource estimation and has relied on provided information and data from the Company, including but not limited to the geological model and database. Mr Griffin consents to the inclusion in this announcement of matters based on his information in the form and context in which it appears. Further details on the Mineral Resource can be found detailed in the ASX Announcement of 29 April 2020.

The information in this announcement that relates to Exploration Results and other technical information relating to drilling, sampling and the geological interpretation derived from the Exploration Results complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**) and has been compiled and assessed under the supervision of Mr Bill Oliver, the Managing Director of Vanadium Resources Ltd. Mr Oliver is a Member of the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Mr Oliver consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. The Exploration Results are based on standard industry practises for drilling, logging, sampling, assay methods including quality assurance and quality control measures as detailed in the ASX Announcement of 29 April 2020.

Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which VR8 operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement. No forward looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside VR8's control.

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