24 July 2020

INITIAL STEELPOORTDRIFT DOWNSTREAM TESTWORK DELIVERS OUTSTANDING RESULTS

HIGHLIGHTS

- **Testwork definitively confirms Steelpoortdrift concentrate eminently suitable for optimal conventional salt roast-leach processing**
- **Elevated vanadium recoveries of up to 89% using standard and proven operating conditions enhances competitive edge**
- **Results from testwork confirm that the Steelpoortdrift concentrate could provide superior feed to other vanadium processing facilities in South Africa or elsewhere**
- **Potential for further improvements in future studies with optimisation of roasting conditions and salt dosage**
- **Scoping Study nearing Q3 completion milestone with VR8 seeking to be the lowest capex and opex global producer**

The management of Vanadium Resources Limited (ASX:VR8) (**VR8** or **the Company)** is very pleased to announce the results of downstream testwork on samples from the Company's Steelpoortdrift Vanadium Project in South Africa.

Bill Oliver, Managing Director of VR8 commented:

"These first roast leach testwork results (under standard conditions) are excellent and demonstrate the amenability of the high quality Steelpoortdrift concentrate to the salt roast–leach process used globally to extract vanadium. We anticipated at least similar, if not better, recoveries to current vanadium operations in the Bushveld Complex due to the geological similarities between the deposits and better than expected results have now been confirmed. The combination of high recoveries with the high grade nature of the in situ mineralisation and concentrate at Steelpoortdrift bodes well for the Company's aim of developing the project into one of the worlds lowest capex and opex producers."

Roasting tests were carried out under three different sets of conditions, as detailed in Table 1, with a repeat test completed for each procedure (making 6 tests in total, refer Appendix 1 for details). The testwork methodology was designed by Les Ford, consultant to the Company and renowned vanadium processing expert[1], to be similar to those used in vanadium operations in South Africa.

Table 1. *Extraction results from roasting trials*

	Salt Dosage (wt%)		Roasting Temperature (°C)	Vanadium Extraction (%)
	Na_2CO_3	Na_2SO_4		
Method 1	6.0		1100	**89.1**
Method 2	6.0		1150	**88.4**
Method 3	5.1	1.2	1150	**87.3**

NB: 2 trials completed for each method, average extraction results presented. Refer Appendix 1.

Testwork was completed at Mintek South Africa, an internationally accredited mineral processing laboratory with significant experience in processing and extraction of vanadium. The downstream testwork was carried out on a sample of concentrate produced in the recent beneficiation studies with a grade of 2.2% V_2O_5 and 1.2% silica (refer ASX Announcement 24 June 2020).

Results from the testwork confirm that extraction of vanadium from the Steelpoortdrift concentrate will be advantageously comparable to other vanadium processing operations in the Bushveld Complex. The grade of the Company's Mineral Resource more than measures up with these projects (Figure 1, Appendix 2) and is expected to provide the project with an advantage in terms of operating costs, that should be confirmed by the current Scoping Study to assess the viability of constructing and operating a vanadium plant at Steelpoortdrift. The results from this testwork also

[1] Refer Press Release by Largo Resources (TSX.LGO), largoresources.com, dated January 20, 2011, Press Release Details, Largo Appoints Les Ford to Be Technical Director of Brazilian Operations

confirms the Steelpoortdrift concentrate could provide superior feed to other vanadium processing facilities in South Africa or elsewhere.

Future tests will provide an opportunity to further reduce projected operating costs by varying roasting temperatures and salt dosages from these standard conditions, providing vanadium yields are maintained at acceptable levels, alternatively there is the potential to further improve the extraction of vanadium by varying extraction conditions.

The results from Method 3 described in the Table one will be used as the input into the Company's Scoping Study, which is nearing completion. The use of Na_2SO_4 is favoured in salt roasting, as it is able to be recovered elsewhere in the process and returned to the kiln, thereby reducing reagent costs.

Results from the Scoping Study are anticipated to demonstrate both the cost-competitive advantage and the viability of producing a high purity V_2O_5 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 samples used to generate the concentrate for these tests were a 50:50 blend of the LMZ and UMZ mineralisation at Steelpoortdrift. Future studies will focus on repeatability and variability between the different mineralised zones at Steelpoortdrift, including samples from the discrete massive LM1A magnetite zone at the base of the LMZ (68Mt at 1.37% V_2O_5, refer Appendix 3), which is anticipated to provide the majority of the early feed to a salt roast plant at Steelpoortdrift.

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

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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 are either 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.

This month 98% V_2O_5 flake product has traded around $7.00/lb (US$15,420/tonne; Fastmarkets Metal Bulletin), although a price differential has opened up between European and Chinese markets. Trade remains quiet globally with supply of product largely restored and buyers having re stocked in recent weeks.

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 (Figure 1), 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, Appendix 3). A sizeable portion of this high grade resource (68Mt at 1.37% V_2O_5, Appendix 3) is hosted in a discrete, massive magnetite unit which outcrops along 4km of strike within the project area.

The Steelpoortdrift Vanadium Project produces a high-quality concentrate containing approximately 2.2% V_2O_5, 12% TiO2 and 58% Fe (ASX Announcements 18 March 2019 and 24 June 2020). Studies into downstream processing of this concentrate are in progress to confirm its ability to create high value products suitable for the steel, renewable energy (VRFB battery) and industrial minerals markets.

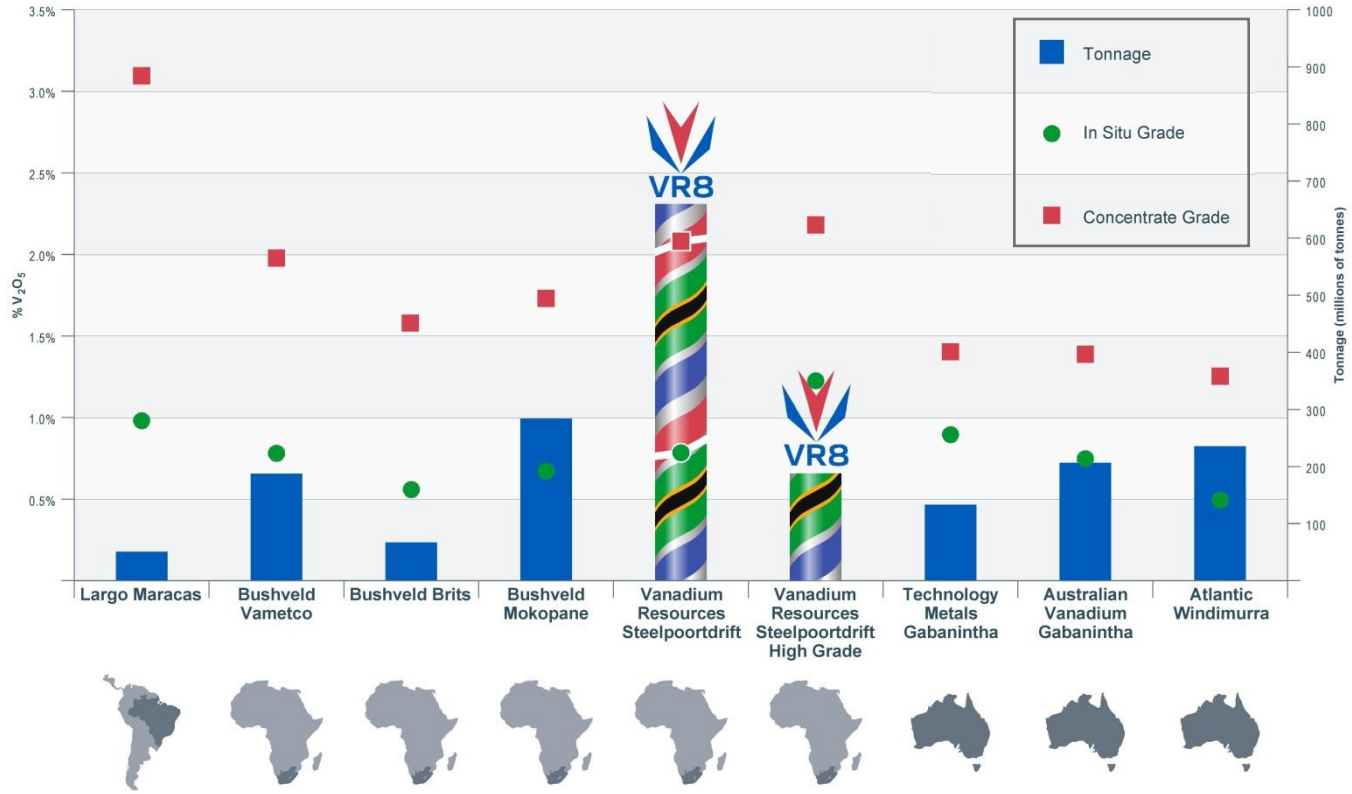

Figure 1. *Global vanadium projects categorised by resource grade and grade in concentrate.*

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: Metallurgical Analyses from Cleaner Trials

	Salt Dosage (wt%)		Roasting Temp. (°C)	Calculated recovery to filtrate	Sample	V_2O_5 (%)	TiO_2 (%)	SiO_2 (%)	Al_2O_3 (%)
	Na_2CO_3	Na_2SO_4							
Concentrate (Tests 1A – 3B)						2.12	12.2	1.39	3.45
Test 1A	6.0		1100	**89.4 %**	Roaster product	1.95	11.6	1.75	3.43
					Leach residue	0.21	12.1	1.88	3.65
Test 1B	6.0		1100	**88.8 %**	Roaster product	1.95	11.5	1.93	3.48
					Leach residue	0.23	12.1	1.82	3.67
Test 2A	6.0		1150	**86.3 %**	Roaster product	2.05	11.6	2.55	3.78
					Leach residue	0.29	11.8	2.46	3.84
Test 2B	6.0		1150	**90.5 %**	Roaster product	1.96	11.7	2.20	3.72
					Leach residue	0.20	11.8	2.10	3.80
Test 3A	5.1	1.2	1150	**85.9 %**	Roaster product	1.80	11.6	1.99	3.59
					Leach residue	0.27	12.1	1.97	3.84
Test 3B	5.1	1.2	1150	**88.7 %**	Roaster product	1.94	11.6	1.86	3.50
					Leach residue	0.23	11.9	2.05	3.67

Notes:

- The samples used to generate the concentrate were sourced from bulk rejects from the Company's 2018 and 2019 drilling programmes at the Steelpoortdrift Vanadium Project.
- Details of the drilling, sampling and analytical methods are described in detail, including information prescribed by the JORC Code, in Appendix 4.

Competent Persons Statement:

The information in this announcement that relates to metallurgical testwork results has been compiled and assessed under the supervision of Mr Eugene Nel, a Professional Engineer of the Engineering Council of South Africa and a Member of the South African Institute of Mining & Metallurgy (both Recognised Professional Organisations as defined in the JORC Code). Mr Nel is the Principal Consultant at ENC Minerals (Pty) Ltd, consultants to the Company, and 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 Nel consents to the inclusion in this announcement of matters based on his information in the form and context in which it appears..

The information in this announcement that relates to Exploration Results and other technical information relating to drilling, sampling and geological interpretations derived from the Exploration Results complies with the 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 Appendix 4.

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

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 3: Mineral Resource Statement for the Steelpoortdrift Vanadium Project

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

Category	V_2O_5 Cutoff	SG	Tonnes (Mt)	Whole Rock V_2O_5%	Tonnes V_2O_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_2O_5 Cutoff	SG	Tonnes (Mt)	Whole Rock V_2O_5%	Tonnes V_2O_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_2O_5 Range	Category	SG	Tonnes (Mt)	Whole Rock V_2O_5%	Tonnes V_2O_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**

APPENDIX 3: Mineral Resource Statement for the Steelpoortdrift Vanadium Project – Continued

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

V_2O_5 Range	Category	SG	Tonnes (Mt)	Whole Rock V_2O_5%	Tonnes V_2O_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 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**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.

APPENDIX 4.

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results at the Steelpoortdrift Vanadium Project.

Section 1: Sampling Techniques and Data

(Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Metallurgical samples made up by compositing excess sample material ("bulk rejects") from diamond core drilling (NQ size) and RC drilling using 5 ¼" face sampling hammer. Equal quantities of LMZ and UMZ material used. Samples separated using magnetic methods to form a concentrate which was then used to test amenability to salt roasting and leaching.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	RC & DD drilling sampled at 1m intervals RC drilling split on site using a riffle splitter. DD drilling split at core shed used a core saw.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	All aspects of the determination of mineralisation are described in this table. Drilling using these methods is considered appropriate for sampling the vanadiferous titanomagnetite unit which hosts the mineralisation. All of the drill samples have been sent to a commercial laboratory for crushing, pulverising and chemical analysis by industry standard practises. Metallurgical testwork has followed standard techniques for extraction of magnetite using a magnetic separation process.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (e.g. core diameter, triple of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).*	RC drilling uses face sampling hammer and 5 ¼" bit sizes. DD drilling used NQ sized core
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	RC drill samples are weighed to give a quantitative basis to estimation of recovery. Diamond core is measured to quantify core recovery each run.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC drilling – consistent drilling technique, cleaning of cyclone. Diamond drilling –consistent drilling technique.
	Whether a relationship exists between sample recovery and grade and whether sample bias may	No relationship observed between recovery and

Criteria	JORC Code explanation	Commentary
	have occurred due to preferential loss/gain of fine/coarse material.	grade. There is no known or reported relationship in historical drilling between sample recovery and grade.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	RC drill chips & drill core is being geologically logged for the total length of the hole. Logging is recording lithology, mineralogy, alteration, veining, structure, mineralisation and weathering. Logs are coded using the company geological coding legend and entered into Excel worksheets prior to being loaded into the company database. All core is being photographed with images to be stored on the company server. Logging is appropriate and sufficiently detailed to support Mineral Resource estimates.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of chips and core is both qualitative (eg. colour) and quantitative (eg. minerals percentages).
	The total length and percentage of the relevant intersections logged.	100% of all drilling to date by the Company has been logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Sampling for all diamond core samples is undertaken on split core, halved via a core saw.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC drilling is sampled dry and split through a riffle splitter. Following laboratory preparation , the excess crushed sample is returned to the Company. The sample is composited on a hole by hole basis according to the stratigraphic unit of the mineralised zone (Upper, Intermediate and Lower). Samples from the same stratigraphic zone are combined and submitted for the metallurgical testwork
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sampling techniques are of consistent quality and appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	To ensure representivity sampling followed the same methodology at all times (both for assay and for metallurgy). Field duplicates taken and inserted for the assay samples. Certified Reference Materials (CRMs) were selected to be similar in chemistry to the mineralisation being targeted.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	One field duplicate is collected per 20 assay samples in addition to laboratory duplicates which were also reported. For the metallurgical samples samples were combined based on stratigraphic units. Repeat assays were carried out on the samples prior to magnetic

Criteria	JORC Code explanation	Commentary
		separation as well as afterwards.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The material and sample sizes are considered appropriate given the magnetite unit being sampled.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Drill samples were sent to ALS Johannesburg, an ISO accredited commercial laboratory, for preparation and whole rock analysis. All samples were analysed by XRF fusion for Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu, Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn and Zr as well as loss on ignition. Davis Tube analysis was carried out by SGS Laboratories Johannesburg, an ISO accredited commercial laboratory. Davis Tube analysis carried out at magnetic field of 1000G with magnetic and non-magnetic fractions analysed by XRF fusion for Fe, TiO2, V2O5, P2O5, SiO2, Al2O3, CaO, Cr2O3, MgO, MnO, Na2O, K2O and loss on ignition. Metallurgical testwork utilised the large scale magnetic separation units at Multotec's R&D Division. The initial magnetic concentrate produced in May 2019 was re-milled to 80% passing 106um, then passed through varying magnetic fields as detailed in Table 1 of the ASX Announcement dated 24 June 2020. LIMS utilised magnetic fields of 1550G while HIMS utilised magnetic fields of 6500G. Samples were analysed at SGS laboratories using the same methods as for the Davis Tube samples. Testwork products from the roasting tests as well as the leach residues, final filtrates and wash water were analysed at Mintek, an internationally accredited laboratory, using ICP-OES.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Hand held assay devices have not been reported.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	For assay samples QA/QC samples are inserted every 10 samples. These alternate between a CRM & blank, and a field duplicate (RC drilling only). CRM are sourced from an accredited source and are of similar material to the mineralisation being sampled. QA/QC samples are checked following receipt of each assay batch to confirm acceptable accuracy and precision. Duplicates are taken of each metallurgical sample

Criteria	JORC Code explanation	Commentary
		(feed, magnetics, non-magnetics) and analysed
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Assay results and intersections have been reviewed by independent geological consultants.
	The use of twinned holes.	Twinned holes are being drilled as part of the drilling programme.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is collected in the field and entered into Excel worksheets prior to being loaded into a database managed by an independent consultant.
	Discuss any adjustment to assay data.	Analytical result for V converted to V_2O_5 by multiplying by 1.785.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Location data has been recorded by handheld GPS (±5m accuracy on easting and northing) and will be regularly checked by survey by a licensed surveyor. Drillhole deviation for drilling is being measured via in-rod surveys during drilling.
	Specification of the grid system used.	The grid system for the SPD Vanadium Project is UTM Zone 35 S (WGS 84 Datum).
	Quality and adequacy of topographic control.	Good, based on recent UAV and heliborne surveys.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drilling to date over the SPD Vanadium Prospect is on approximately 150m - 300m centres east-west and 300m -450m centres north-south over the mineralised body.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Data spacing is deemed sufficient to establish geological and grade continuity to establish a mineral resource estimate, refer ASX Announcement 29 April 2020.
	Whether sample compositing has been applied.	No sample compositing has been applied.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The majority of the drilling at the SPD Vanadium Project is vertical which is considered appropriate given the shallow dip and regional and local geological stratigraphy.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	To date, orientation of the mineralised domain has been favourable for perpendicular drilling and sample widths are not considered to have added a significant sampling bias.
Sample security	*The measures taken to ensure sample security.*	Samples are stored at a secure yard. Samples are then delivered to the assay laboratory in Johannesburg by representatives of the Company.

Criteria	JORC Code explanation	Commentary
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No independent audits have been undertaken.

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	The Steelpoortdrift Vanadium Project comprises a Mining Right covering the farm Steelpoortdrift 365 KT.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenure is in good standing.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The Project has previously been explored for magnetite-hosted Fe-V-Ti deposits.
Geology	*Deposit type, geological setting and style of mineralisation.*	Vanadium mineralisation at the SPD Project is located close to the contact between the Upper Zone and Main Zone of the Bushveld Igneous Complex and adjacent to the Steelpoort Fault. Mineralisation is hosted in two layers, the Upper Magnetite Layer (UML) and Lower Magnetite Layer (LML), which dip shallowly (10-12deg) to the west.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	Refer ASX Announcments 12 Oct 2018, 25 Oct 2018, 28 Nov 2018, 14 Jan 2019, 16 Jan 2019. 18 Mar 2019, 29 Jan 2019, 18 Mar 2019, 5 Aug 2019, 25 Sep2019, 19 Nov 2019.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	All results > 0.5% V_2O_5 have been averaged weighted by downhole length, and inclusive of a maximum of 2m internal waste. Davis Tube results are reported for the same intervals as the whole rock analyses.

Criteria	JORC Code explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	High grade intervals > 1% V_2O_5 and 1.5% V_2O_5 have also been reported. No internal waste used for these.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are being used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Downhole lengths reported, true widths not known at this time.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Appropriate diagrams are shown in the ASX Announcments of 12 Oct 2018, 25 Oct 2018, 28 Nov 2018, 14 Jan 2019, 16 Jan 2019. 18 Mar 2019, 29 Jan 2019, 18 Mar 2019, 5 Aug 2019, 25 Sep2019, 19 Nov 2019..
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All results > 0.5% V_2O_5 included.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Exploration data is contained in previous ASX Announcements.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	As detailed in the text – further work will be to integrate these results with the Mineral Resource and mining studies into a Scoping Study to assess the project's viability.