4 OCTOBER 2022

VR8 UPDATES MINERAL RESOURCE AND ORE RESERVE FOR THE STEELPOORTDRIFT VANADIUM PROJECT

HIGHLIGHTS

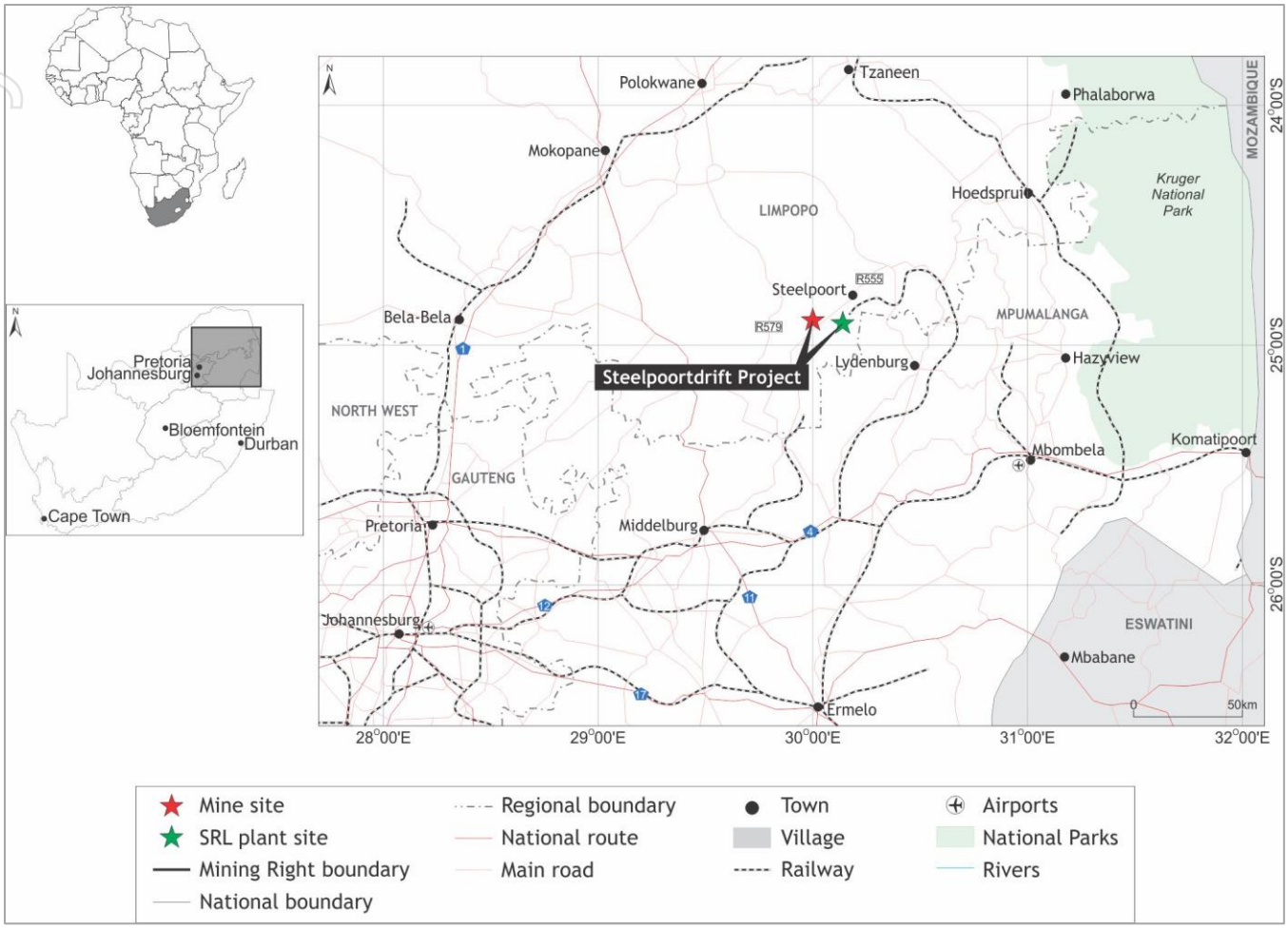
- Vanadium Resources ("ASX:VR8") has completed the updated Mineral Resource and Ore Reserve estimate for the Steelpoortdrift ("**SPD**") Project following the completion of a Definitive Feasibility Study ("**DFS**") that resulted in a re-interpretation of the geology, an enhanced block model, Life of Mine ("**LoM**") plan and revised Mineral Resource and Ore Reserve statements.
- The Mineral Resources now amount to **680Mt** (2.7% increase) averaging **0.70%** vanadium pentoxide ("**V_2O_5**") at a cut-off grade of 0.45% V_2O_5. The Measured Mineral Resources increased by **58%** to **145Mt** averaging **0.72% V_2O_5**.
- The Ore Reserves total **76.86Mt** at an average grade of **0.72% V_2O_5** with **30.23Mt** of Proved Ore Reserves at an average grade of **0.70% V_2O_5** and **46.62Mt** of Probable Ore Reserves at an average grade of **0.72% V_2O_5**
- Geological Model identified potential target areas for future infill drilling down dip from current Resource to further expand deposit.

***Eugene Nel (CEO) commented**: "The company is pleased with the outcomes of the updated Resource and Reserve estimates completed as part of the DFS. Of particular significance is the increase in confidence levels at Resource level (Measured Mineral Resource increase) which gives support to the mining and processing plans developed from these estimates. The potential to increase the Resource further through additional drilling could also further enhance the projects standing as one of the largest untapped deposits globally."*

PROJECT BACKGROUND

Vanadium Resources Limited ("ASX:VR8") is pleased to announce an update to the Mineral Resource and Ore Reserve Estimates for the Steelpoortdrift Project ("**the SPD Project**") located on the farm Steelpoort 365KT near Steelpoort in the Limpopo Province, South Africa (Figure 1).

Figure 1: Location of the SPD Project



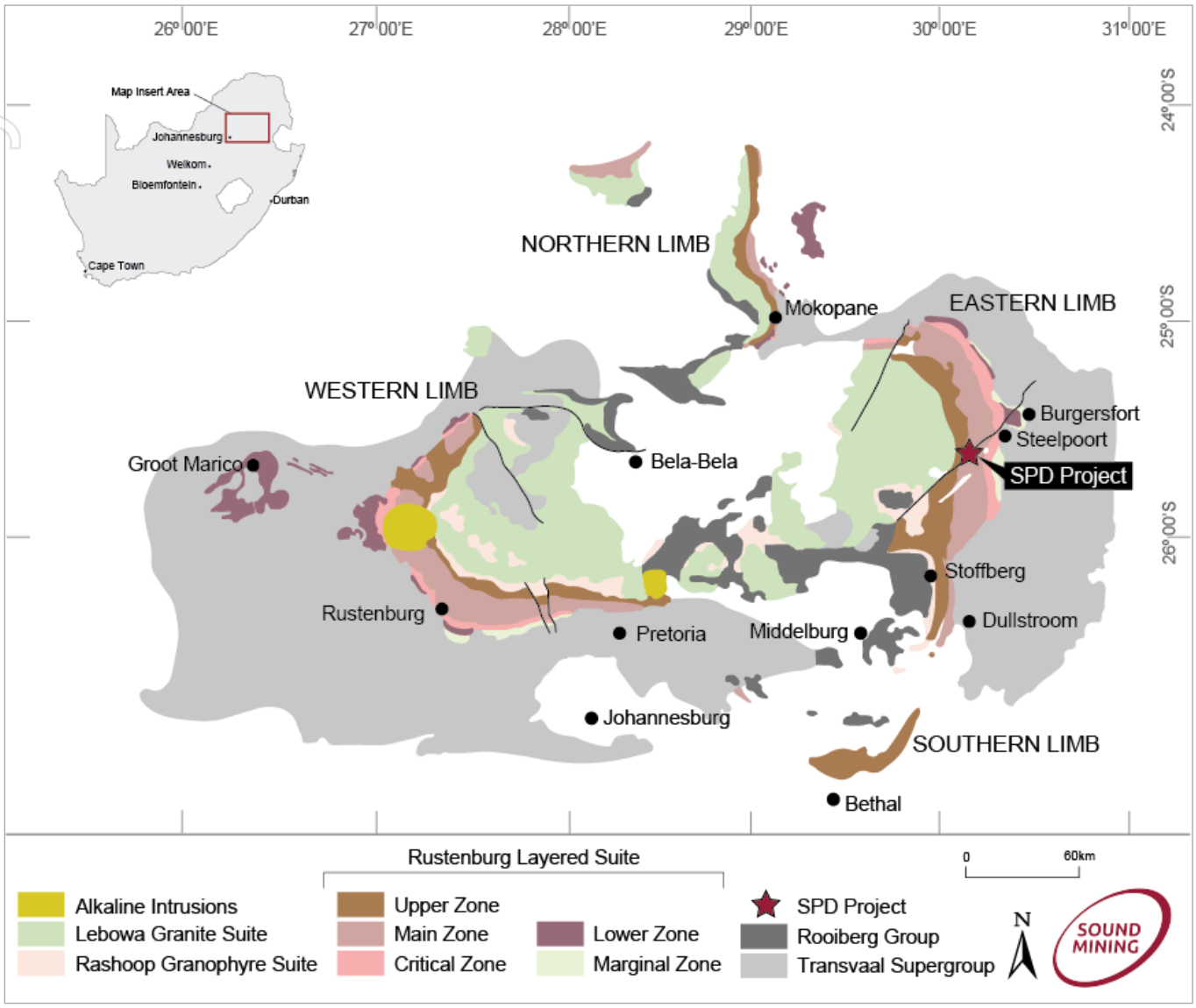
Source: Tenement, 2022

VR8 is a public company listed on the ASX which holds a 73.95% share in South African registered, Vanadium Resources (Pty) Limited ("**VanRes**"). VanRes is the beneficial holder of the Steelpoortdrift Project and associated Mining Right. The balance of 26.05% is held by Broad Based Black Economic Empowerment ("**BBBEE**") partners namely, Steelpoortdrift Development Trust (representing the local community), Obeec (Pty) Limited and Math-Pin Trust.

The SPD Project involves plans to exploit near surface vanadiferous-titano-magnetite mineralisation layers which are hosted within the Eastern Limb of the world-famous Bushveld Complex ("**BC**") to produce vanadium (i.e., >98% V_2O_5) flake ("**Flake**").

The BC (Figure 2) is a saucer-shaped, layered igneous intrusion emplaced as multiple injections or pulses of sulphide rich magma. Vanadium mineralisation occurs within four vanadium-bearing titano-magnetite-rich layers which are located at the base of the Upper Zone of the Rustenburg Layered Suite.

Figure 2: Location of the SPD Project in Relation to the Bushveld Complex



Source: Sound Mining, 2022

It covers two separate areas approximately 23km apart by road namely, the mine and concentrator site, and the Salt Roast Leach ("**SRL**") and administration site. These sites are approximately 274km northeast of the capital of Pretoria.

This announcement is linked to changes that have occurred during the completion of the Definitive Feasibility Study ("**DFS**") to confirm the techno-economic merits of the SPD Project. The reader is referred to ASX announcement dated 4 October 2022:"*DFS delivers A$1.9bn NPV confirming world class Steelpoortdrift vanadium project*" for a detailed description of the DFS, which covered the mining, processing and infrastructural designs and all of the environmental, social and governance issues related to both sites that underpin the revised Mineral Resources and Ore Reserves as stated herein.

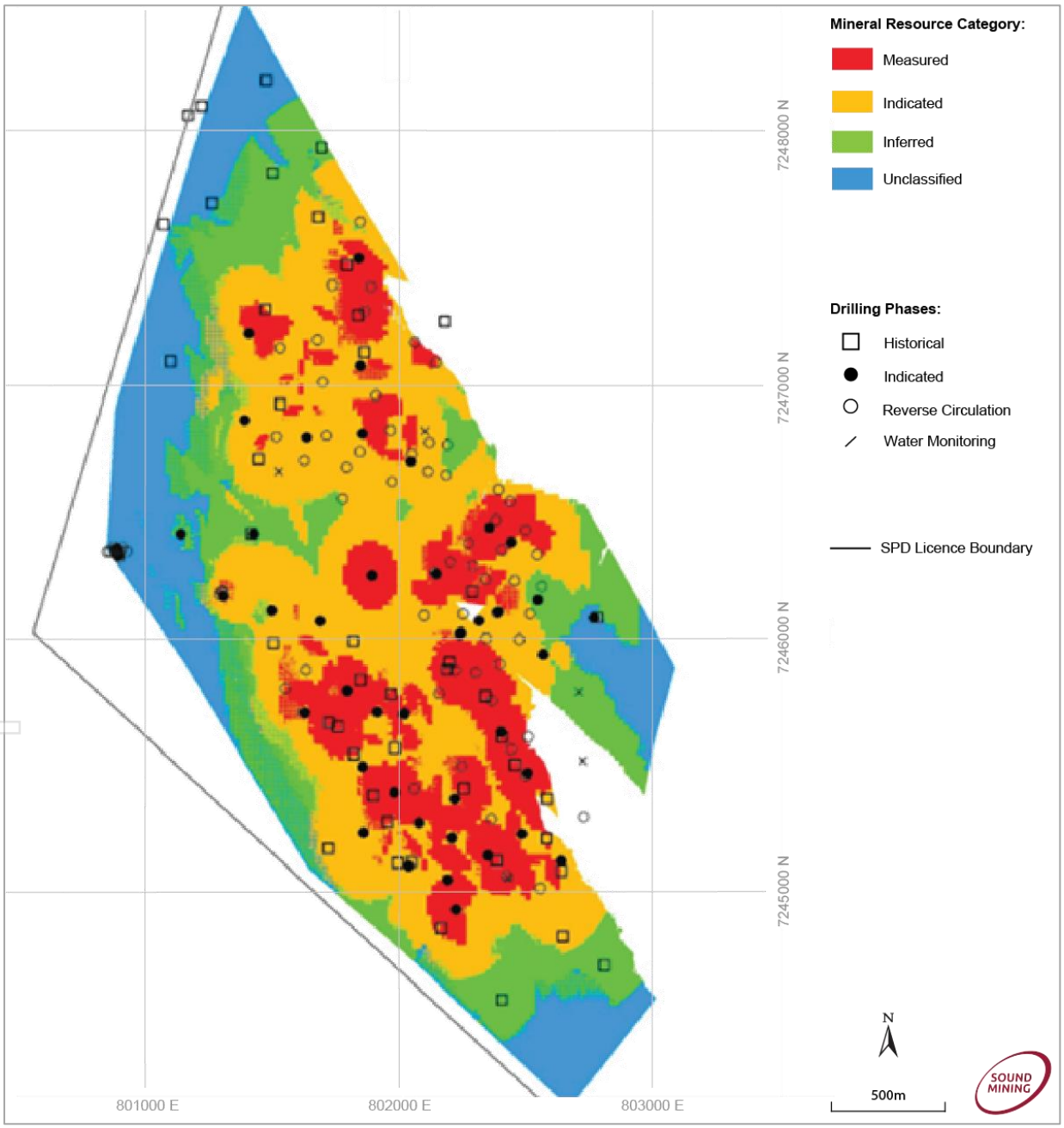
The following statements have been prepared in accordance with the requirements of The Australasian Code

for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition ("**JORC Code, 2012**").

Mineral Resources

The Mineral Resources are stated as at 30 April 2022 by Ms Sara Turnbull of Sound Mining International SA (Pty) Limited ("**Sound Mining**") and the Competent Person ("**CP**") responsible for the Mineral Resource estimate. They amount to 680Mt of Measured, Indicated and Inferred Mineral Resources at an average grade of 0.70% V_2O_5 when a cut-off grade of 0.45% V_2O_5 is applied. Figure 3 illustrates the distribution of the Mineral Resources as classified.

Figure 3: SPD Project Mineral Resource Classification



Source: Sound Mining, 2022

The geology of the area is well-understood and in the CP's opinion the Mineral Resources in Table 1 enjoy reasonable prospects for eventual economic extraction ("**RPEEE**"). and has produced Mineral Resource model; from which the Mineral Resource estimate has been derived.

Table 1: Mineral Resources as at 30 April 2022

CLASSIFICATION	VOLUME (m^3)	QUANTITY (Mt)	QUALITY (% V_2O_5 In-situ)	CONTAINED V_2O_5 (Mt)	QUALITY (% Fe_2O In-Situ)	CONTAINED Fe_2O (Mt)
Measured	43.77	145.46	0.72	1.05	22.47	32.68
Indicated	98.75	327.29	0.70	2.29	22.80	74.62
Inferred	63.41	207.38	0.68	1.40	22.90	47.49
Total Mineral Resource	**205.93**	**680.13**	**0.70**	**4.74**	**22.76**	**154.80**

Source: Sound Mining, 2022

Notes:

- Stated at a cut-off grade of 0.45% V_2O_5;
- The Mineral Resources are stated on a 100% attributable basis for VanRes, of which VR8 owns 73.95%;
- The Mineral Resources are inclusive of Ore Reserves; and
- Reported in-situ with any apparent computational errors due to rounding not considered significant.

An appropriate application of structure with a drone survey which provided a suitable topographical surface enabled the development of a robust three dimensional ("**3D**") geological block model. This model was populated with information from an appropriate analytical analysis of data retrieved from 165 exploration drillholes and sound statistical and variography grade interpolation parameters were used for the Mineral Resource estimate.

The exploration drilling was conducted using industry best practices with the same geologists overseeing the drilling, sampling and logging activities to ensure consistency in the interpretation of lithological boundaries and application of sampling intervals.

The CP was able to view and verify a number of drill hole collar locations, geological outcrops of mineralisation and the basement anorthosite during the visits to the site. Spot checks were conducted on the drill core, lithological logging, chip logging and sampling procedures with no material procedural issues noted. The sampling methods are considered to be appropriate and representative of the geological units with minimal bias introduced during the modelling interpretations. The sampling intervals and frequency of samples were sufficient for an accurate Mineral Resource estimate.

The CP is also satisfied that the frequency of Quality Assurance and Quality Control ("**QA/QC**") sample inserts for the VR8's drilling campaigns were completed with an acceptable degree of accuracy and precision with insignificant amounts of contamination reported. The exploration, assay data and QA/QC analysis is deemed reasonable and sufficiently reliable; and therefore, are acceptable for use in defining an Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition ("**JORC Code, 2012**") compliant Mineral Resource estimate.

Table 2 presents the previous Mineral Resource Statement of 31 July 2020.

Table 2: Mineral Resources as at 31 July 2020

CLASSIFICATION	VOLUME (m^3)	QUANTITY (Mt)	QUALITY (% V_2O_5 In-situ)	CONTAINED V_2O_5 (Mt)	QUALITY (% Fe_2O In-Situ)	CONTAINED Fe_2O (Mt)
Measured	27.52	92.29	0.77	0.71	24.03	22.18
Indicated	84.49	284.44	0.78	2.22	24.55	69.83
Inferred	84.52	285.32	0.77	2.20	24.87	70.96
Total Mineral Resource	**196.52**	**662.05**	**0.77**	**5.10**	**24.62**	**163.00**

Source: Mining Plus, 2020
Note: at a cut-off grade of 0.45% V_2O_5

The differences between the successive Mineral Resource estimates is presented in 3. The differences in the 2022 Mineral Resource may be attributed to the following:

- smaller area with lower extrapolation distances used. The previous Mineral Resource extended beyond the Mining Right boundary whilst the current Mineral Resource has allowed a 50m boundary to the Mining Right Boundary;
- geological model based upon assay results not mineralised zones, which has resulted in a lower average grade and increase tonnage. Metallurgical testwork results indicate that vanadium can be recovered from gabbros because they are magnetic; and
- inclusion of additional drilling into the geological model allowing for an increase in the tonnage reporting to Measured Resources.

Table 3: Differences between successive Mineral Resources estimates

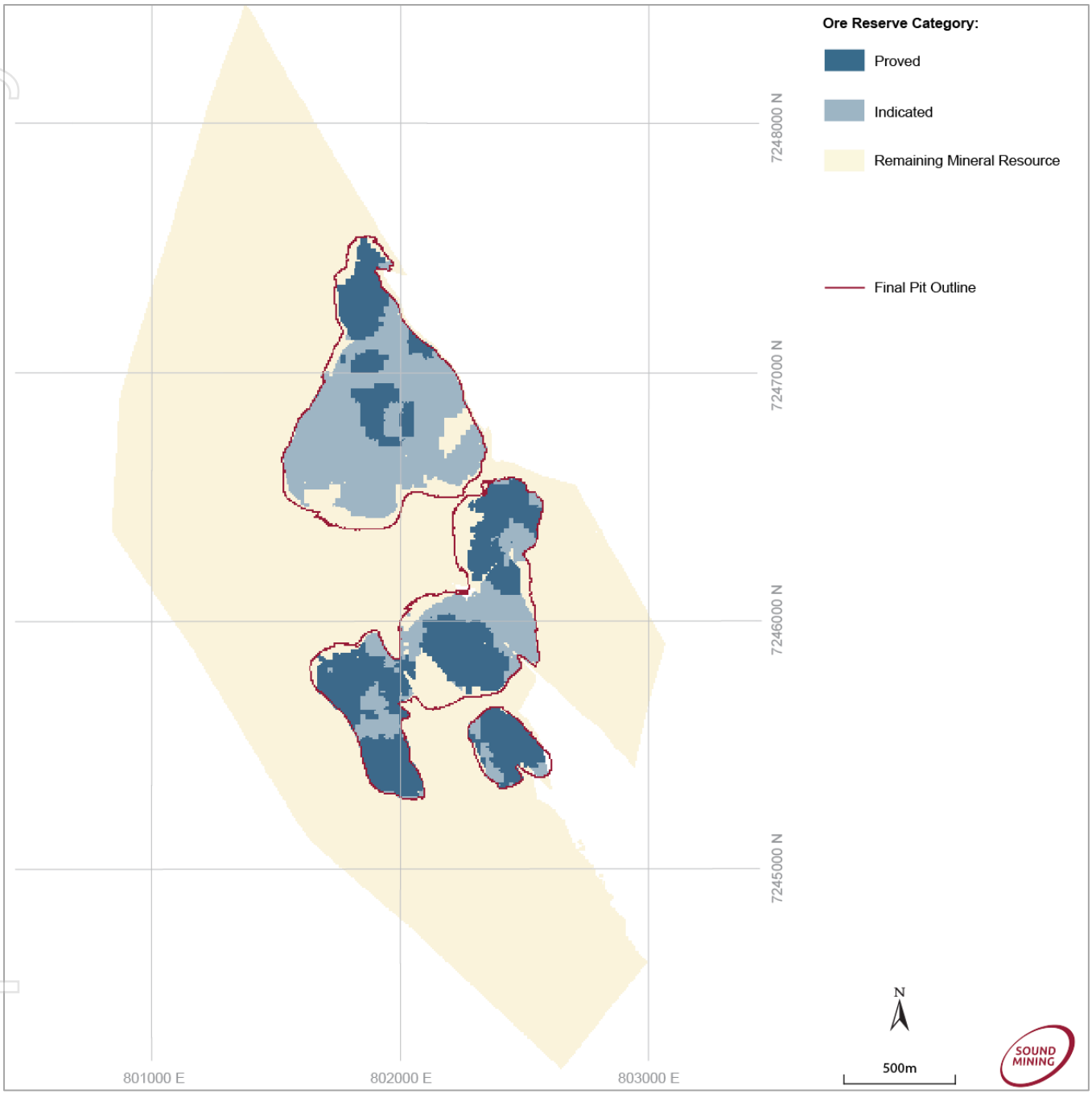
	30 JULY 2020			30 APRIL 2022			DIFFERENCE		
RESOURCE CATEGORY	TONNAGE (Mt)	IN SITU GRADE (V_2O_5 %)	CONT'D V_2O_5 (Mt)	TONNAGE (Mt)	IN SITU GRADE (V_2O_5 %)	CONT'D V_2O_5 (Mt)	TONNAGE (Mt)	IN SITU GRADE (V_2O_5 %)	CONT'D V_2O_5 (Mt)
Measured	92.29	0.77	0.71	145.45	0.72	1.05	**37%**	**-7%**	**32%**
Indicated	284.43	0.78	2.22	327.29	0.70	2.29	**13%**	**-11%**	**3%**
Inferred	285.32	0.77	2.20	207.37	0.68	1.40	**-38%**	**-14%**	**-57%**
TOTAL / AVE	**662.04**	**0.77**	**5.13**	**680.11**	**0.70**	**4.74**	**3%**	**-11%**	**-8%**

The change in Total Mining Resource is not considered as being material by the CP.

Ore Reserves

The Ore Reserves are stated as at 30 September 2022 by Mr Vaughn Duke of Sound Mining and the CP responsible for the Ore Reserve estimate, which amounts to 76.9Mt of Proved and Probable Ore Reserves at an average RoM grade of 0.72% V_2O_5. Figure 4 shows the distribution of the Proved and Probable portions of the Ore Reserves within the footprint of the underlying Mineral Resources.

Figure 4: Ore Reserve Category

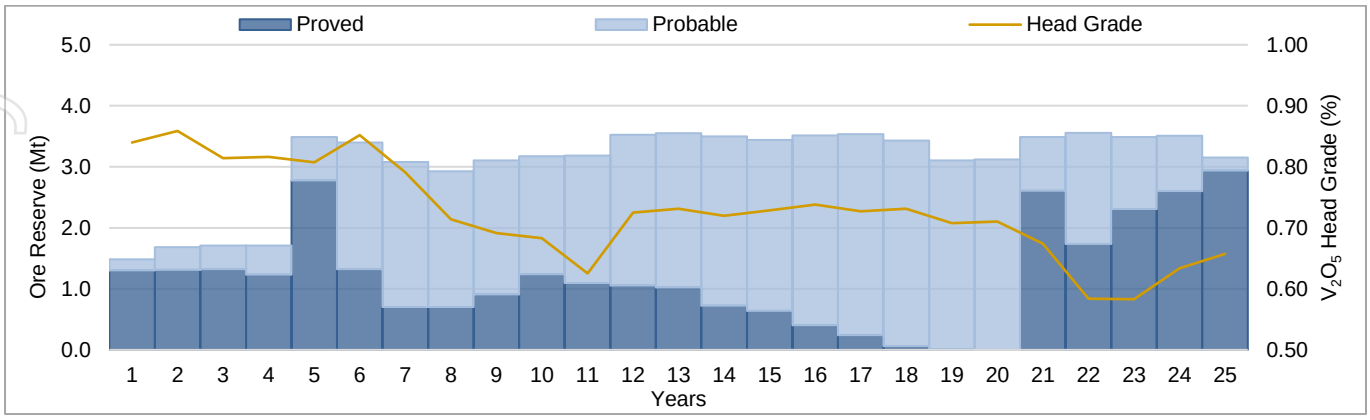


Source: Sound Mining, 2022

The Ore Reserve statement as at 30 September 2022 (Table 4) is underpinned by the DFS work which was prepared to an accuracy of -10% to +20%, based on Class 3 level estimates, as specified by the Association for the Advancement of Cost Engineering ("**AACE**"). The reader is referred to ASX Announcement of 4 October 2022: "*DFS delivers A$1.9bn NPV confirming world class Steelpoortdrift vanadium project*" It contains a LoM plan with suitable cost estimates for the complete mining and processing operation designed to produce the required Flake product.

Graph 1 presents the production schedule of Proved and Probable materials over 25 years of the LoM.

Graph 1: Ore Reserve Production Schedule



Source: Sound Mining, 2022

The CP has independently satisfied himself of the technical merits of the DFS and has tested the economic viability of the Mineral Resources depleted by the LoM plan. Positive cash flows are evident through to the end of the LoM and the CP is satisfied that the Ore Reserves can be technically and economically extracted at a price of USD9.50/lb.

Table 4: Ore Reserves as at 30 September 2022

CLASSIFICATION	QUANTITY (Mt)	QUALITY (% V_2O_5 RoM)	CONTAINED V_2O_5 (Mt)
Proved Ore Reserves	30.23	0.70%	0.21
Probable Ore Reserves	46.62	0.72%	0.34
Total Ore Reserves	**76.86**	**0.72%**	**0.55**

Source: Sound Mining, 2022

Notes:

- The Ore Reserves are stated at a price of USD9.50/lb;
- The Ore Reserves are stated on a 100% attributable basis for VanRes, of which VR8 is owns 73.95%;
- The LoM was restricted to a production forecast of 25 years whereafter the mining licence will need to be renewed.
- The Ore Reserves are reported at the point of delivery for processing;
- The Quantity is reported in metric tonnes and the Grade reported as a percentage of contained V_2O_5;
- Any apparent computational errors due to rounding are not considered significant;
- The Ore Reserves may be subject to legal, political, environmental or other risks;
- Losses that could occur as a result of transportation of content or Flake are considered to be negligible; and
- 39% of the Ore Reserves are in the Proved category and no Inferred Mineral Resources included in the Ore Reserve estimate.

The LoM plan relies on conventional open pit mining techniques to deliver RoM Ore to a Concentrator from where concentrate is transported some 23km to a SRL plant for final processing into the Flake product to be delivered to market. The open pit design and associated LoM production forecast was restricted by an Environmental Impact Inclusion Zone which was included in the study to minimise the environmental and social impact of the SPD Project. Suitable modifying factors were used for the open pit optimisation, mine design, production scheduling and economic assessment.

The CP is satisfied with the relatively low stripping ratio and lower mining costs estimated given the geological setting of the relatively shallow dipping and outcropping orebody. The Ore Reserves were determined by considering only the quantity of Measured and Indicated Mineral Resources depleted by the LoM schedule, which contained a marginal amount of Inferred Mineral Resources (<5%).

Table 5 shows the previous Ore Reserve as at 30 June 2021.

Table 5: VR8 Ore Reserves as at 30 June 2021

CLASSIFICATION	QUANTITY (Mt)	QUALITY (% V_2O_5 RoM)	CONTAINED V_2O_5 (Mt)
Proved Ore Reserves	31.17	0.76%	0.24
Probable Ore Reserves	42.68	0.75%	0.32
Total Ore Reserves	**73.85**	**0.75%**	**0.56**

Source: Sound Mining, 2021

The differences between the previous and current Ore Reserve estimates are presented in 6. The differences cannot be reconciled as material changes have taken place to the LOM and associated production schedule when compared to the previous Ore Reserve estimate.

Table 6: Differences between successive Ore Reserve estimates

	30 JUNE 2021			31 AUGUST 2022			DIFFERENCE		
RESOURCE CATEGORY	TONNAGE (Mt)	IN SITU V_2O_5 (%)	CONT'D V_2O_5 (t)	TONNAGE (Mt)	IN SITU V_2O_5 (%)	CONT'D V_2O_5 (kt)	TONNAGE (Mt)	IN SITU V_2O_5 (%)	CONT'D V_2O_5 (Mt)
Proved	31.17	0.76	240.00	30.23	0.70	213.09	**-3%**	**-8%**	**-13%**
Probable	42.68	0.75	320.00	46.62	0.72	337.32	**8%**	**-4%**	**5%**
TOTAL / AVE	**73.85**	**0.77**	**560.00**	**76.86**	**0.70**	**550.41**	**4%**	**-11%**	**-2%**

Source: SMI (2022)(PR/SMS/1131/21)

No material change in contained V_2O_5 occurred with the updated Ore Reserves containing a total of 0.55Mt compared to previously reported value of 0.56Mt.

This announcement has been authorised for release by the Board of Vanadium Resources Limited.

For further information please contact:

Eugene Nel
Chief Executive Officer
VANADIUM RESOURCES LIMITED
contact@VR8.global

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 the Company 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 the Company's control.

The Company does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of the Company, its Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

This announcement is not an offer, invitation or recommendation to subscribe for, or purchase securities by the Company. Nor does this announcement constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

Competent Person's Statement and Compliance Statements

The information in this announcement does not contain any new information in relation to Exploration Results or Targets and the Company confirms that any information relating to exploration work has not materially changed from previously reported information

The information in this statement that relates to the Mineral Resource and Ore Reserve Estimates of the SPD project, is based on information that has been reviewed by Ms Sara Turnbull and Mr Vaughn Duke of Sound Mining International SA (Pty) Limited ("Sound Mining"). They both have sufficient experience, which is relevant to the activity being undertaken, to qualify as Competent Persons in terms of the JORC Code, 2012 Edition.

Ms Turnbull is a registered Professional Natural Scientist (Pri.Sci.Nat.) with the South African Council for Natural Scientific Professions ("SACNASP" – Reg. No.:117787) and a member of the Geological Society Council of South African ("GSSA"). Ms Turnbull has reviewed the Mineral Resource Statement in this announcement as well as all Exploration information underpinning this and has given her permission for the publication of this information in the form and context within which it appears.

Mr Vaughn Duke is a registered Professional Engineer (Pr.Eng.) with the Engineering Council of South Africa ("ECSA" – Reg. No.:940314) and a Fellow of The Southern African Institute of Mining and Metallurgy ("SAIMM"). Mr Duke has reviewed the Ore Reserve Statement in this announcement and has given his permission for the publication of this information in the form and context within which it appears.

Appendix 1: JORC tables

Section 1: Sampling techniques and data

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling Techniques	• Nature and quality of sampling (e.g., 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • 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 (e.g., 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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 (e.g., submarine nodules) may warrant disclosure of detailed information.	• Diamond Drilling: ○ drillhole SPD and SFDD series diamond core drilling used BQ sized core; ○ drillhole VDD series diamond core drilling used NQ sized core; ○ sampling was done lithologically at an optimum sample length of 1m, a minimum sample length of 15cm was required for assay purposes; ○ the core was halved for analyses and the remaining halves were retained in stratigraphic sequence in the core trays; and ○ the remaining core has been photographed, and the trays stacked and stored at VR8 core shed in Steelpoort. • RC Drilling: ○ drillhole VRC and SFR series used 5¼ inch face sampling hammer; ○ RC drilling was sampled at 1m intervals; and ○ RC drilling split was done on site using a riffle splitter. • All aspects of the determination of mineralisation are described in this table. • The RC and diamond drilling using these methods were considered appropriate for sampling the vanadiferous titanomagnetite unit which hosts the mineralisation. • All of the drill samples taken were sent to a commercial laboratory for crushing, pulverising and chemical analysis by industry standard practices.
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 or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• **Diamond Drilling:** ○ drillhole SFDD and SPD series diamond drilling from surface using BQ core sizes; ○ drillhole VDD diamond drilling used HQ and NQ2 core sizes. Coring was from surface using HQ. Core was changed to NQ2 when ground conditions were competent; and ○ all diamond core was stored in industry standard core trays labelled with the drillhole ID and core interval. • **RC Drilling:** ○ drillhole VRC and SFR series used sampling hammer and 5¼ inch bit sizes.
Drill Sample Recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• Diamond Drilling: ○ the condition and qualitative estimates of DD sample recovery were determined through visual inspection and measurements of the drilling core runs and recorded at the time of recovery at the drill rig; and ○ hard copy and digital copy of the sampling log were maintained for data verification. • RC Drilling: ○ samples were weighed to give a quantitative basis to estimation of recovery; and ○ a consistent drilling technique was used, with cleaning of cyclone after each sample. • Diamond drill core recovery was recorded as a percentage of measured recovered cores versus drilled distance. Recoveries have been high to date. • RC drill samples were weighed to give a quantitative basis to estimation of recovery. • No relationship was observed between recovery and grade. • There is no known or reported relationship in historical drilling between sample recovery and grade.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.	• SFDD and SPD series holes were qualitatively logged for the total length of the hole. Logging recorded lithology, mineralogy, alteration, veining, grainsize, mineralisation and weathering. • SFR series holes (RC chips) were logged on a metre basis with an allocation of colour, grain size and rock name, to each metre. • VDD drill core and VRC RC drill chips were geologically logged for the total length of the hole. Logging recorded lithology, mineralogy, alteration, veining, structure, mineralisation and weathering. Logs were coded using the company geological coding legend and entered into Excel worksheets prior to being loaded into a database maintained by an independent consultant. All core was photographed with images stored on the company server. • Logging of chips and diamond core was both qualitative (e.g., colour) and quantitative (e.g., minerals percentages). • Logging was appropriate and sufficiently detailed to support Mineral Resource estimates. • 100% of all drilling to date by the Company has been logged. Mineralised zones were logged in detail extending into the overlying and underlying non-mineralised zones.
Sub-sampling Techniques and Sample Preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Sampling for all diamond core samples were undertaken on split core, halved via a core saw. • RC drilling is sampled dry and split using a riffle splitter. For the drillhole SFR series RC drill holes the entire recovered sample for each metre was collected and riffle split down to a 1kg sub sample. Samples were then combined to form 2m composites. • The sampling techniques for both diamond drilling and RC drilling are of consistent quality and appropriate. Whole samples were delivered to the lab, where sample preparation was done according to industry standards • To ensure representivity, core was taken from the same side of the hole each time. Cutting and splitting of samples were done to ensure the sample integrity remains the same. Cutting first taking place along the length of the core on the marked orientation line. The retention / reference core was placed back in the core tray, with all sampling and meter marking details reapplied to the reference core on the cut surface. The core that was to be sent for sampling was then cut on the white sample marks (start and end marks for sampling), but the cutting was only done halfway through the core and the core then physically broken further. • For the RC drilling, the entire metre of sample was collected and split on site with a riffle splitter. Each sample was fed progressively from the cyclone into a transparent tube (“sausage” bag) in a manner that ensured that very little mixing occurred between material derived from adjacent depths. The sample “sausages” was packed next to the rig in metre sequences and labelled using permanent black markers, indicating the drillhole number and the “from” and “to” for each bag. • To ensure representativity, sampling followed the same methodology at all times, with field duplicates taken and inserted into the sample stream. Certified Reference Materials (**CRMs**) were selected to be similar in chemistry to the mineralisation being targeted. • One field duplicate was collected per twenty samples in addition to laboratory duplicates which were also reported. • The material and sample sizes were considered appropriate given the unit being sampled.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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. • 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. • Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	• The 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 Al_2O_3, As, Ba, CaO, Cl, Co, Cr_2O_3, Cu, Fe, K_2O, MgO, Mn, Na_2O, Ni, P, Pb, S, SiO_2, Sn, Sr, TiO_2, 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 1,000g with magnetic and non-magnetic fractions analysed by XRF fusion for Fe, TiO_2, V_2O_5, P_2O_5, SiO_2, Al_2O_3, CaO, Cr_2O_3, MgO, MnO, Na_2O, K_2O and loss on ignition. • Handheld assay devices have not been reported. Handheld magnetic susceptivity readings were used to ensure the complete possible mineralised zones were sampled. • QA/QC samples were inserted every ten samples. These alternate between a CRM and blank, and a field duplicate. • CRMs were sourced from an accredited source and are of similar material to the mineralisation being sampled. • QA/QC samples were checked following receipt of each assay batch to confirm acceptable accuracy and precision.
Verification of Sampling and Assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Assay results and intersections have been reviewed by independent geological consultants and by Sound Mining's CP, Sara Turnbull. • Assay results were checked and verified against the lithological logs and any anomalous values were verified by the onsite geologists. • A third-party twinned two drill holes, namely VDD044 and VDD040 with VRC060 and VRC062, however, VR8 plans to have twinned holes included in their future drilling programme. • Primary data was collected in the field and entered into Excel worksheets prior to being loaded into a database managed by an independent consultant. • Analytical results for V were 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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Location data was recorded by handheld Garmin GPS (±7m accuracy on easting and northing) and checked by a licenced surveyor. • Drillhole deviation for drilling was measured via in-rod surveys during drilling. • The grid system for the SPD Project is UTM Zone 35 S (WGS 84 Datum). • Topographic control was good and was based on recent unmanned aerial vehicle (UAV) and heliborne surveys.

Data Spacing and Distribution	• Data spacing for reporting of Exploration Results.
	• 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.
	• Whether sample compositing has been applied.
		• Drilling to date over the SPD Project was on approximately 150m to 300m centres east-west and 300m to 450m centres north-south over the mineralised body.
		• Data spacing was deemed sufficient to establish geological and grade continuity to establish a Mineral Resource estimate.
		• The classification of the Mineral Resource considered the search passes for grade interpolation and taking cognisance of the historical data, for which no QA/QC data was available for review. This classification criteria are as follows:
		  ○ Measured Mineral Resources assigned to search pass 1;
		  ○ Indicated Mineral Resources assigned to search pass 2 and only within the search pass intersecting the most recent drilling data for which QA/QC data is available;
		  ○ Inferred Mineral Resources assigned to search pass 3 and only within the search pass intersecting the most recent drilling data for which QA/QC data is available; and
		  ○ the remainder of the deposit is unclassified.
		• An analysis of the sample lengths indicates an average sample length of 0.96m. This is primarily driven by the RC drilling and sampling. An analysis of the diamond drill hole sampling indicates an average sample length of 0.84m, as such samples were composited to 1m intervals prior to statistical analysis.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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. • 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.	• The majority of the drilling at the SPD Project was inclined to the north-east which is considered appropriate given the regional and local geological stratigraphy. • To date, orientation of the mineralised domain was favourable for perpendicular drilling and sample widths were not considered to have added a significant sampling bias.
Sample Security	• The measures taken to ensure sample security.	• Samples were stored at a secure yard. Samples were then delivered to the assay laboratory in Johannesburg by representatives of the Company.
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	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 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 SPD Project comprises a Mining Right covering the farm Steelpoortdrift 365 KT. • The tenure is in good standing. • The Company is not aware of any impediments relating to the licence or the area.
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.	• The SPD Project is located within the Eastern Limb of the of the Bushveld Complex (**BC**) close to the contact between the Upper Zone and Main Zone, adjacent to the Steelpoort Fault. • The BC is a saucer-shaped, layered igneous intrusion emplaced as multiple injections or pulses of sulphide rich magma. Vanadium mineralisation occurs within four vanadium-bearing titano-magnetite-rich layers which are located at the base of the Upper Zone of the Rustenburg Layered Suite.

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.
	• 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.
		• All drill hole information is available in previous ASX:VR8 announcements (12 October 2018, 25 October 2018, 28 November 2018, 16 January 2019, 14 February 2019 and 27 March 2019) and no new results were used in the Mineral Resource Estimation.
		• All information was included where applicable.

Data Aggregation Methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly 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 were reported for the same intervals as the whole rock analysis. • High grade intervals > 1% V_2O_5 and 1.5% V_2O_5 have also been reported. No internal waste was used for the high-grade intervals. • No metal equivalent values were 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 (e.g., 'down hole length, true width not known').	• Downhole lengths were reported, and no true widths are 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 have been shown in the text.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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 are included in exploration reporting.
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.	• All current exploration data was derived from diamond drill and RC drilling samples. Previous ASX Announcements have detailed other exploration including magnetic surveys, surface sampling result, drilling results (whole rock and Davis Tube), metallurgical test results.
Further Work	• The nature and scale of planned further work (e.g., 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.	• Further work should include bulk sample testing and the logging and potential analyses from a geotechnical investigation.

Section 3: Estimation and reporting of Mineral Resources

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Database Integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• The database is managed by an external, independent database consultant. Data imported to the database goes through a series of visual and database routine validations before being accepted. Assay results were also compared to the recorded lithologies. Exports from this database were used for the Mineral Resource estimation. • Following importation into the modelling software, data undergoes validation by the software's inbuilt validation tools followed by manual validation and checks by the competent person
Site Visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The Sound Mining's CPs conducted two site visits during March 2022 primarily to oversee the drilling of ten drill holes for geotechnical investigation. The core shed, the proposed access sites, infrastructure, open pit sites and process plant sites were also visited during this time. It is noted that due to the drilling being specifically for geotechnical assessment, no assay sampling has been conducted as of the effective date of the Mineral Resource Statement. • Spot checks were conducted on the lithological logging procedures practiced during the 2022 geotechnical drilling. Drill core, chip logging and sampling procedures from the previous drilling campaigns were inspected. No significant data or procedural issues were noted during the CP's site visits. The CP was able to view and verify a number of drill hole collar locations, geological outcrops of mineralisation and the basement anorthosite. • Gemecs is responsible for the overall geological database and signing-off on sampling activities and verification of assay results and database management. • The Competent Person for the Mineral Resource completed a site visit in March 2022 prior to initiating the MRE. • Personnel who supervised the sampling of the 2010 drilling programme and the estimation of the previous SAMREC Resource were on site during the 2018 drilling campaign and have verified there is no new or material data that would have an adverse effect on the acceptance of the historical drilling, modelling and interpreted geology.
Geological Interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• The confidence in the geological interpretation is considered to be moderate to high. The geological setting is well known and documented in the literature. Local geologists very familiar and experienced in the BC geology have performed the logging and sampling activities. • A geological model was established based on historical and follow-up surface mapping and drilling results. • Results from additional drilling will improve the detail of the sub surface geology.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The UMZ and LMZ have been mapped along strike (NW-SE) for approximately 4km and intersected in drilling for approximately 1.7km to the SW (distance from outcrop to furthest drilling. • The thickness of the layers is shown by the assay results released by the Company and ranges from 5m to 37m (not true thickness).

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Estimation and Modelling Techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Interpolation of V_2O_5 grade was undertaken using Micromine software. Statistical investigations were completed on the captured estimation data set, composited to 1m intervals. • No extreme grades or magnetite contents were observed and therefore no top cuts were required. • The previous JORC compliant Mineral Resource Estimate was documented in the ASX Announcement of 28 April 2020 contained material classified as Measured, Indicated and Inferred, the 16 April 2019 Resource contained material classified as Indicated and Inferred. A previous JORC compliant Mineral Resource Estimate was documented in the ASX Announcement of 18 December 2018 and contained material wholly classified as Inferred, and prior to this a Mineral Resource was estimated under the SAMREC Code and is documented in the ASX Announcement of 22 March 2018. • Block sizes were selected with the assistance of Quantitative Kriging Neighbourhood Analysis and consideration of drillhole spacing. • No assumption of mining selectivity was incorporated into the Mineral Resource estimate, although minimum grade cut-off was used to determine and report the Mineral Resource. • Visual validation was completed and shows reasonable correlation between estimated grades and drill sample grades. • No cutting or capping was applied after the statistical review of the V_2O_5 distribution, this showed no significant outliers. • No reconciliation data is available as no mining has taken place.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Quantities were estimated on a dry in situ basis. No moisture values were reviewed, as moisture is not relevant in the geological setting.
Cut-off Parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The cut-off grade was based on likely economic concentrations of V_2O_5 based on the review of similar projects. Mining studies should be carried out to determine a more precise cut-off grade and marketing studies should be used to refine this based on the economic value of other metals (or presence of deleterious elements).
Mining Factors or Assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Mineral Resource model assumes open pit mining should be undertaken and a reasonable level of mining selectivity should be achieved. It has been assumed that grade control should be applied to ore/waste delineation processes.
Metallurgical Factors or Assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Metallurgical test work results were reported in an ASX Announcement dated 22 June 2021 and 18 March 2019. • Where required, area analogues (e.g., Rhovan, Mapochs, Vametco) were used to determine the prospects of eventual economic extraction.

<table>
<tr><th>CRITERIA</th><th>JORC CODE EXPLANATION</th><th>COMMENTARY</th></tr>
<tr><td>Environmental Factors or Assumptions</td><td>• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</td><td>• No assumptions were made regarding environmental factors. The Company should work to mitigate the environmental impact as a result of any future mining or mineral processing.
• The mining residue stockpiles should be covered in the Integrated Environmental Authorisation and should be stored back in the mined area so as to keep the footprint as small as possible.
• The tailings should be stored in an authorised tailings storage facility with the correct lining and dirty water dams.</td></tr>
<tr><td>Bulk Density</td><td>• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.
• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.
• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</td><td>• Density measurements were completed on RC drill chips (using a pycnometer) from the 2018 and historical drilling.
• Block values for Bulk Density were calculated using the high correlation and density value. This level of precision is deemed appropriate for a Mineral Resource at a Measured level of confidence.</td></tr>
<tr><td>Classification</td><td>• The basis for the classification of the Mineral Resources into varying confidence categories.
• Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).
• Whether the result appropriately reflects the Competent Person’s view of the deposit.</td><td>• The Mineral Resource for the SPD Project is classified as Measured, Indicated and Inferred based on geological understanding, data quality, sample spacing and geostatistical analysis.
• Quantitative Kriging Neighbourhood Analysis (QKNA) was undertaken to investigate changes with regards to block size and number of informing samples.
• The slope of regression shows apposing trends when investigating the effects of a change in block size in a northerly and eastly direction. Due to the dipping nature of the deposit and the closest drill holes being approximately 80m apart, a block size of 20m-by-20m parent block size was selected.
• Grades (flattened samples) were interpolated into the flattened block model using four search passes (see table below). Each search used the criteria of intersecting a minimum of two drill holes, one sample per drill hole and a maximum of 30 samples. The search ellipses were orientated according to the directions identified in the variography and the search ranges applied can be seen in the table below.
Search Ellipse Ranges
<table>
<tr><th>PARAMETER</th><th>DIRECTION AXIS 1 (m)</th><th>DIRECTION AXIS 2 (m)</th><th>Z DIRECTION AXIS (m)</th></tr>
<tr><td>Search 1</td><td>140</td><td>110</td><td>22</td></tr>
<tr><td>Search 2</td><td>280</td><td>220</td><td>22</td></tr>
<tr><td>Search 3</td><td>560</td><td>440</td><td>22</td></tr>
<tr><td>Search 4</td><td>2,000</td><td>2,000</td><td>200</td></tr>
</table>
• The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in situ mineralisation. The definition of mineralised zones is based on a good geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill and extensional drilling which supported the interpretation.
• The Mineral Resource estimate appropriately reflects the view of the Competent Person, that the data quality and validation criteria, as well as the Mineral Resource methodology and check procedures, are reliable and consistent with criteria as defined by the JORC Code, 2012 Edition.</td></tr>
<tr><td>Audits or Reviews</td><td>• The results of any audits or reviews of Mineral Resource estimates.</td><td>• Sound Mining International SA (Proprietary) Limited has undertaken a review of the Mineral Resource.</td></tr>
</table>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Discussion of Relative Accuracy/ Confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The lode geometry and continuity were adequately interpreted to reflect the level of Measured, Indicated and Inferred Mineral Resources. • The data quality is good, and all drill holes have detailed logs produced by qualified geologists. A recognised laboratory was used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade. • The deposit is not being mined currently, nor has it ever been mined, therefore there is no reconciliation data available.

Section 4: Estimation and Reporting of Ore Reserve

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Mineral Resource Estimate for Conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Mineral Resource for the Steelpoortdrift (SPD) Project as at 30 September 2022 amounts to 680Mt at 0.70% V_2O_5. They have been classified into the Measured, Indicated and Inferred categories according to requirements of JORC 2012 by the Competent Person (**CP**) responsible for the Mineral Resources, namely Ms Sara Jane Turnbull (SACNASP No.:117787) • The SPD Project is underpinned by a Mining Right awarded to Vanadium Resources (Proprietary) Limited (**VanRes**). • This Mineral Resource estimate, which is stated on a non-attributable basis, is inclusive of Ore Reserves.
Site Visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The Ore Reserve estimate (as at 30 September 2022) has been reviewed and signed off by Vaughn Duke (ECSA No.: 940314) as an independent Competent Person. He has visited site on 06 September 2022 and has engaged with all of the relevant engineering specialists to satisfy himself of the accuracy of the LoM designs and associated modifying factors used for the Mineral Resource to Ore Reserve conversion. The responsibility of these specialists, some of which have also visited the site, are describe below: ○ Sara Jane Turnbull (Independent CP and geologist) visited the site on March 2022 ○ Mehdi Nasiri (recognised CP and geotechnical engineer) visited the site on February 2021 and March 2022. He engaged with Martin Holland (CP and geohydrologist) to understand impact of surface and sub-surface water flow across the project. Martin visited the site on January 2022 and April 2022. ○ Keith Raine (recognised CP and environmental specialist) visited the site on February 2021 and March 2022. ○ Nicole Upton (recognised CP and environmental specialist) visited the site on April 2021. ○ Zohreh Fakhraei (recognised CP and mining engineer responsible for the mine design and LoM production forecast) visited the site on March 2022. ○ Eugene Nel (recognised CP and metallurgist) accompanied Vaughn Duke during the visit of the September 2022. ○ Rob Spargo (recognised CP and metallurgist) assisted Vaughn Duke in reviewing the processing designs and associated modifying factors but did not visit the site. ○ Vaughn Duke appraised himself of the suitability of the various sites identified for the processing and other surface infrastructures required in support of the LoM plan. He examined the location, orientation and surface expression of Mineral Resources to be exploited to confirm the relatively low strip ratio.
Study Status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• The Ore Reserve estimate is based on the DFS of the SPD Project that was completed in September 2022. It was performed to supports cost estimates to within -10% to +20%, based on Class 3 level estimates, as specified by AACE. • The CP is satisfied that the LoM plan and associated designs are technically achievable and has confirmed the economic viability of the cashflow forecast resulting from the modifying factors (see tables below) applied inclusive of input costs, metallurgical recoveries, long term Vanadium price, royalties and taxes. • Inferred Mineral Resources have not been included in the Ore Reserve Estimate.
Cut-off Parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade of 0.45% used for the Mineral Resource estimate has also been applied to the Ore Reserve estimate for consistency.

<table>
<tr>
<td>Mining Factors or Assumptions</td>
<td>

The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e., either by application of appropriate factors by optimisation or by preliminary or detailed design).
The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.
The assumptions made regarding geotechnical parameters (e.g., pit slopes, stope sizes, etc.), grade control and pre-production drilling.
The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).
The mining dilution factors used.
The mining recovery factors used.
Any minimum mining widths used.
The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.
The infrastructure requirements of the selected mining methods.

</td>
<td>

Detailed technical studies in support of the modifying factors, pit optimisations and a mine design have been performed as part of the DFS. A Low Environmental Impact Inclusion Zone was provided for the pit optimisation exercise. This Inclusion Zone takes the environmental and social aspects of the SPD Project area into consideration to avoid any encroachment of the mine on water courses and maintain an appropriate buffer zone between the mining area and the local community.
The geometry for stable open pit slope designs is supported by the results from suitable geotechnical study work (see table below):

<table>
<tr><th rowspan="3">DESCRIPTION</th><th colspan="4">DESIGN SECTOR</th></tr>
<tr><th colspan="2">1</th><th colspan="2">2</th></tr>
<tr><th>FRESH ROCK</th><th>WEATHERED ROCK</th><th>FRESH ROCK</th><th>WEATHERED ROCK</th></tr>
<tr><td>Face Angle (°)</td><td>88</td><td>55</td><td>88</td><td>55</td></tr>
<tr><td>Bench Height (m)</td><td>5</td><td>5</td><td>5</td><td>5</td></tr>
<tr><td>Spill Berm Width (m)</td><td>2</td><td>3</td><td>3</td><td>3</td></tr>
<tr><td>Number of Benches in Stack</td><td>6</td><td>6</td><td>6</td><td>6</td></tr>
<tr><td>Inter Ramp Angle (°)</td><td>69.8</td><td>39.8</td><td>61.9</td><td>39.8</td></tr>
<tr><td>Cath Berm Width (m)</td><td>8</td><td>10</td><td>10</td><td>10</td></tr>
</table>

The CP following appropriate investigation is satisfied with the choice of mining method (i.e., conventional open pit mining) and technical and financial parameters applied in the LoM (see additional information in table below):

<table>
<tr><th colspan="2">MODIFYING FACTORS</th><th>VALUE</th></tr>
<tr><td colspan="2">Calculated Mining Loss</td><td>As per Regularised Model (6.9% for entire Mineral Resource)</td></tr>
<tr><td colspan="2">Calculated Dilution</td><td>As per Regularised Model (3.2% for entire Mineral Resource)</td></tr>
<tr><td colspan="2">Geology Loss</td><td>5%</td></tr>
<tr><td colspan="2">Operational or Unplanned Mining Loss</td><td>3%</td></tr>
<tr><td colspan="2">Operational or Unplanned Dilution</td><td>3% with 0% V_2O_5 grade</td></tr>
<tr><td rowspan="3">Plant Recovery</td><td>Concentrator</td><td>98%</td></tr>
<tr><td>SRL</td><td>84.4%</td></tr>
<tr><td>Total</td><td>82.72%</td></tr>
<tr><td colspan="2">V_2O_5 Grade and Mass Yield</td><td>Included in the Mineral Resource Block Model</td></tr>
<tr><td colspan="2">Vanadium Flake Grade</td><td>98%</td></tr>
<tr><td colspan="2">Vanadium Flake Price</td><td>USD9.50/lb</td></tr>
<tr><td colspan="2">ZAR/USD Exchange Rate</td><td>ZAR15.50/USD</td></tr>
</table>

The geological block model was regularised to accommodate a Selective Mining Unit (SMU) of five cubic metres and minimum mining width of 5m. This approach returned a calculated mining losses of 6.9% and calculated dilution of 3.2%.
An additional geological loss of 5%, Operational or Unplanned mining loss of 3% and dilution of 3% (at zero grade) are also applied in the LoM scheduling process.
Approximately 4% of the Inferred Mineral Resources are included sporadically in the LoM production schedule between Year 5 and Year 21. These are not included in the Ore Reserve Estimate and they are not materially impact the economic viability of the Ore Reserves.
Suitable infer structure has been designed as part of the DFS including, processing facilities, conveyors, workshops, administration buildings, haul roads, waste dump and Tailings Storage Facilities (TSF). The backfilling of tailings into mined out areas of the open pit has been included in LoM plan and scheduling to reduce the size of the TSF required.

</td>
</tr>
</table>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Metallurgical Factors or Assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the Ore Reserve estimation been based on the appropriate mineralogy to meet the specifications?	• The metallurgical process reported in the DFS relies on conventional crushing, grinding and magnetic separation techniques to produce a vanadium concentrate. This concentrate will then be roasted in the presence of salt to form water-soluble sodium metavanadate, from which vanadium pentoxide can be extracted. These methods are considered appropriate for the product specification and applied elsewhere in South Africa and globally. • The results of metallurgical test work from bulk sampling and full core samples from wide diameter core drilling have been reported in ASX Announcements dated 24 June 2020, 24 July 2020 and 22 June 2022. The study work was based on these results.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• The SPD project has an approved Environmental Management Plan and VanRes will be applying for an Integrated Environmental Authorisation (IEA), in terms of the National Environmental Management Act (**NEMA**) and the National Environmental Management: Waste Act (**NEM:WA**), to accommodate the latest layouts and designs resulting from the DFS. • VanRes is compliant with all the environmental obligations and is applying for an Integrated Water Use License (**IWUL**). • The operation has been planned to have a minimal impact on the surrounding communities. A number of buildings will need to be moved and the rezoning of certain areas is already in progress.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The SPD Project is within a Special Economic Zone (**SEZ**) around Steelpoort. The area is well endowed with bulk services and supporting industrial works. • The close proximity of national roads, rail heads, dams and the national power grid reduces the initial capital required for production to commence. The plan is for vanadium concentrate to be hauled by road from the Concentrator Plant to the SRL Plant for final processing and Tarred roads already exist. • Suitable skills will be sourced from the local community to support the mining, processing, engineering and administrative function where appropriate. • An option agreement (as described in the 19 August 2022 ASX announcement) to acquire 135ha for the SRL plant has been secured.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• The capital cost estimate has been developed on the back of detailed designs with appropriate work break down structures and detailed Mechanical Equipment List to facilitate accurate calculations. • The mining capital requirement has been aligned with quotes received from an open pit mining contractor. • The capital expenditure for the SRL Plant was based on quotations received from original equipment manufacturers (**OEMs**) for supply of key equipment, with costs for installation, electrical, piping, pipework, structural steel and other plant construction items based on costs at similar operations in South Africa. • The environmental liability and ongoing rehabilitation cost estimates are based on the independent environmental study. • The capital expenditure forecast is driven by the production and operational readiness planning with cognisance taken of long lead item. • The operating cost estimates rely on a combination of techniques, including zero based cost modelling from first principles, quotations from contractors and benchmarking against similar activities in the South African mining industry. • The operating cost forecast is driven by the production profile and variable operating cost component. • The fixed cost component of the processing contribution of about 60%, increased by approximately 70% with the introduction of the Phase 2 processing enhancements. The transport charge for concentrate to the SRL is based on quotations received for the purpose, and for the delivery of product to port is dictated by an associate expression of interest to enter into an off-take agreement. • The cost estimates have been determined in USD and when necessary, an exchange rate of ZAR15.50/USD has been applied. This exchange rate is consistence with the long-term view of most operations in the South African mining industry. An overall accuracy level of +/-10% has been targeted. • Royalties are based on the formula as defined in the South African Royalties Act (2010) linked to the Minerals and Petroleum Resources Development Act (**MPRDA 2002**). The royalties over the LoM were calculated at an average of 4.9%. The related commodity price assumptions are discussed in "Revenue Factors" below.
Revenue Factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• The revenue forecast is a function of the production schedule from the LoM plan, assumed price of USD9.50/lb for the vanadium flake (V_2O_5> 98%) product, processing recovery assumptions, marketing costs and royalty obligations. • The product price was determined on the back of a marketing analysis commissioned for the DFS. • The processing recoveries are based on metallurgical test work and the marketing costs have been informed by the envisioned offtake agreement mentioned above. The CP has not had sight of this expression of interest on the basis that it is a confidential document.
Market Assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• VanRes commissioned Deloitte Technical Mining Advisory of Deloitte Touche Tohmatsu Limited (**Deloitte**) to carry out an independent assessment of the vanadium market for the DFS. • It reports a vanadium supply deficit over the short to medium term going forward despite other entrance into the vanadium market, and VanRes is already engaging with numerous potential customers. • The product to be sold (i.e., vanadium flake, V_2O_5> 98%) is a standard industry specification targeted by the DFS work and associated mining plan.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• The inputs to the discounted cashflow model are tabulated in the body of the DFS. • The economic viability of the Ore Reserves (and SPD Project) has been established by using a Discounted Cash Flow (**DCF**) modelling technique, which relies on the revenue and costs forecasts from the DFS to compute an overall cashflow forecast on an annual basis. • The royalties were calculated using a formula applicable to refined minerals and the South African corporate tax rate of 27% was applied. • The overall cashflow forecast was then discounted using a real discount rate of 7.5% to determine the economics of the planned operation (i.e., escalation is not applied). • The results confirm that the Ore Reserves are economically viable, and a sensitivity analysis demonstrates that the overall cashflow forecast remains robust despite a 20% drop in revenue being the most sensitive to change.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• VanRes have an approved Social and Labour Plan (**SLP**) which is linked to the mining right. • Amendments to this SLP will now be required as a consequence of new designs and updated planning in the DFS that underpins the Ore Reserve Estimate. • These amendments are expected to be completed during calendar year 2023.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: ○ Any identified material naturally occurring risks. ○ The status of material legal agreements and marketing arrangements. ○ The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• A comprehensive risk assessment exercise was undertaken as part of the DFS with the CP in attendance and no fatal flaws were identified during the process. • The Mining Right associated with the Ore Reserve estimate is current and valid. • All material legal agreements are current and active. • Despite the receipt of expressions of interest, binding offtake agreements are not in place at this stage. • The applications submitted for a water use license and for re-zoning are not expected to adversely impact the timelines assumed in the DFS.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The Measured and Indicated Resources scheduled for depletion and processing from within the open pit design have been converted to Proved and Probable Ore Reserves, respectively. • The CP is satisfied with the materiality of the Ore Reserve and appropriateness of their categorisation.
Audits or Reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No audits or reviews of Ore Reserve estimates have been conducted.
Discussion of Relative Accuracy/ Confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and taking account of material and relevant modifying factors including mining, processing, infrastructure, environmental, legal, social and commercial factors. • The Probable Ore Reserve estimate has been based on the amount of Ore Reserve material within the pit design which is associated with the Indicated and Measured Mineral Resource. • No Inferred Mineral Resource was included in the Ore Reserve. The Ore Reserve represents the economically mineable part of the Measured and Indicated Mineral Resources over a period of 25 years. • The proposed mine and mineral beneficiation planning through to a final vanadium pentoxide flake product is considered by the Competent Person to be technically achievable. • The key factors that are likely to affect the accuracy and confidence in the Ore Reserves are: ○ Changes in vanadium pentoxide flake prices. ○ Changes in anticipated metallurgical recoveries.