



AVZ MINERALS LTD



Kyoni pegmatite

Roche Dure pegmatite

Mpete pegmatite

Carriere de l'Este pegmatite

Tempete pegmatite

Malata pegmatite

THE 'ESCONDIDA' OF LITHIUM
May 2019



IMPORTANT NOTICE AND DISCLAIMER



This presentation should be considered in its entirety. If you do not understand the material contained in this presentation, you should consult your professional advisors. The sole purpose of this presentation is to provide shareholders with an update on current activities of the Company and the current state of exploration at the Manono Project in the Democratic Republic of Congo.

Any statements which may be considered forward looking statements relate only to the date of this presentation document. Such forward looking statements involve known and unknown risks, uncertainties and other important factors beyond the Company's control that could cause actual results, performance or achievements of the Company to be materially different from future results, performance, or achievements expressed or implied by such forward looking statements. As a result of these factors, the events described in the forward-looking statements in this document may not occur.

Notwithstanding the material in this presentation, shareholders should consider that any investment in the Company is highly speculative and should consult their professional advisers – whether scientific, business, financial or legal – before deciding whether to make any investment in the Company.

The Company may at its absolute discretion, but without being under any obligation to do so, update, amend or supplement this presentation or any other information to the recipient. No person has been authorised to give any information or make any representation other than contained in this document and if given or made, such information or representation must not be relied on as having been so authorised.

JORC statements & Qualifications / Competent Persons Statement

Given the size and mineralised nature of the pegmatites at Manono, the Company has generated an exploration target tonnage of between 1000 and 1200Mt at grade between 1.25% to 1.5% Li₂O within pegmatite ore. The potential quantity and grade as stated, is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource for the entire project and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

This conceptual target has only been based on detailed prospect scale mapping, some 37 trenches totalling 2,800m producing 1200 assay samples and approximately 27,500m of logs relating to diamond core drilling from 83 drill holes as completed to-date. The company has completed a significant drilling program to define Mineral Resources to JORC 2012 standard for the Roche Dure prospect but is still to drill a significant program at any other prospect.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr. Peter Spitalny, a professional Geologist, pegmatite specialist and Competent Person whom is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Spitalny is a full-time employee of Hanree Holdings Pty Ltd. Mr Spitalny 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Spitalny consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

MSA Resources Statement / Competent Person Statement

The information in this report that relates to mineral composition investigations is based on information compiled by Mr. Michael Cronwright, a Competent Person whom is a fellow of The Geological Society of South Africa and Pr. Sci. Nat. (Geological Sciences) registered with the South African Council for Natural Professions. Mr. Cronwright is a full-time employee of The MSA Group Pty Ltd. Mr Cronwright 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Cronwright consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in the document to which this statement is attached that relates to the geology of the Roche Dure pegmatite is based upon information compiled by Mr Michael Cronwright (M.Sc.), who is a fellow of The Geological Society of South Africa and Pr. Sci. Nat. (Geological Sciences) registered with the South African Council for Natural Professions. Mr Cronwright is a Principal Consultant with The MSA Group (Pty) Ltd (an independent consulting company). Mr Cronwright has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the JORC Code.

The Mineral Resource estimate has been completed by Mr Anton Geldenhuys (BSc Hons, MEng) who is a geologist with 17 years' experience in exploration and mining as well as Mineral Resource evaluation and reporting. He was a Principal Mineral Resource Consultant for The MSA Group (an independent consulting company), is a member in good standing with the South African Council for Natural Scientific Professions (SACNASP) and is a Member of the Geological Society of South Africa (GSSA). Mr Geldenhuys has the appropriate relevant qualifications and experience to be considered a Competent Person for the activity being undertaken as defined in the 2012 edition of the JORC Code.



IMPORTANT NOTICE AND DISCLAIMER



Cautionary Statements: Scoping Study Parameters

The Scoping Study referred to in this announcement has been undertaken to determine financial aspects of potential future operations at the Manono Lithium and Tin Project and to help drive future work programs. It is a preliminary technical and economic study of the potential viability of the Manono Lithium and Tin Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of Ore Reserves. Further exploration and evaluation work and appropriate studies are required before AVZ Minerals Limited (AVZ) will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.

All costings and projections in financial modelling were prepared on the Measured and Indicated Resources as announced by AVZ on the 2nd August 2018. These combined, account for approximately 56.83% of the existing Mineral Resource. The Inferred Mineral Resources (43.17%) have been partly utilised in the modelling. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the declaration of Indicated or Measured Mineral Resource. Furthermore, there is no certainty that further exploration work will result in the conversion of Measured and Indicated Mineral Resources to Ore Reserves.

The Scoping Study is based on the material assumptions included below. These include assumptions about the availability of funding. While AVZ considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved. To achieve the range of outcomes indicated in the Scoping Study, funding in the order of approximately \$156M (accurate to $\pm 35\%$ and includes US\$36m contingency) will likely be required for Stage 1 (base case). Investors should note that there is no certainty that AVZ will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of AVZ's existing shares. It is also possible that AVZ could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce AVZ's proportionate ownership of the project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Cautionary Statements: Exploration Target

The Exploration Target on Carriere de l'Este Prospect referred to in this Presentation is conceptual in nature and further exploration will be required and that it is uncertain if further exploration will result in the estimation of a Mineral Resource Estimate. Please refer to the ASX announcement dated 19th February 2019 titled "Remarkable Drill Results Confirm Carriere de l'Este Prospect".

Cautionary Notes: Forward Looking Statements

The findings contained in this presentation reflect an ongoing analysis and therefore there is no certainty that all the conclusions reached in this presentation will be realised. This report contains forward-looking statements. All statements, other than statements of historical fact, that address activities, events or developments in respect of which it is believed, expected or anticipated will or may occur in the future (including, without limitation, statements regarding estimates and/or assumptions in respect of production, revenue, cash flow and costs, estimated project economics, mineral resource and mineral reserve estimates, potential mineralization, potential mineral resources and mineral reserves, projected timing of possible production and exploration and development plans and objectives) are forward-looking statements.

These forward-looking statements reflect current expectations or beliefs based on information currently available. Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results of AVZ to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on AVZ.

Factors that could cause actual results or events to differ materially from current expectations include, among other things: uncertainties relating to the availability and costs of financing needed in the future; uncertainty of estimates of capital and operating costs, production estimates and estimated economic return; the possibility that actual circumstances will differ from the estimates and assumptions used in the Manono Scoping study; failure to establish estimated mineral resources or mineral reserves; fluctuations in lithium and tin prices and currency exchange rates; inflation; metal recoveries being less than those indicated by the metallurgical test work carried out to date (there can be no assurance that lithium and tin recoveries in small scale laboratory tests will be duplicated in large tests under on-site conditions or during production); changes in equity markets; political developments in the DRC; lack of infrastructure; failure to procure or maintain, or delays in procuring or maintaining, permits and approvals; lack of availability at a reasonable cost or at all, of plants, equipment or labour; inability to attract and retain key management and personnel; changes to regulations affecting AVZ's activities; the uncertainties involved in interpreting drilling results and other geological data; and the other risks disclosed under the heading "Risk Factors" and elsewhere in the Company's public documentation.

Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise, is disclaimed. Although it is believed that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein.

The mineral resource figures referred to in this report are estimates and no assurances can be given that the indicated levels of lithium will be produced. Such estimates are expressions of judgment based on knowledge, exploration and mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While it is believed that the resource estimates included in this report are well established, by their nature resource estimates are imprecise and depend, to a certain extent, upon statistical inferences which may ultimately prove unreliable. If such estimates are inaccurate or are reduced in the future, this could have a material adverse impact on AVZ. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that mineral resources can be upgraded to mineral reserves through continued exploration.

Due to the uncertainty that may be attached to inferred mineral resources, it cannot be assumed that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource as a result of continued exploration. Confidence in the estimate is insufficient to allow meaningful application of the technical and economic parameters to enable an evaluation of economic viability worthy of public disclosure (except in certain limited circumstances). Inferred mineral resources are excluded from estimates forming the basis of this Scoping Study and any feasibility study.



THE FUTURE



“Lithium will in the near future be one of the most sought-after raw materials on earth”



Volkswagen press release on the announcement of a long term supply agreement with Ganfeng, April 5 2019



Lithium: The Irreplaceable Element of the Electric Era

Why is lithium so important for the production of electric car batteries? And how will Volkswagen secure a sustainable supply chain? We answer the key questions.



Today, lithium ore is predominantly extracted in Australia.

“Long-term agreements such as the one we have now made with Ganfeng for the most important raw material, lithium, have decisive strategic importance for the implementation of our “E-Offensive;” says Dr. Stefan Sommer, Group Board of Management member for Components and Procurement at Volkswagen AG, thus formulating the extreme importance of the long-term lithium supply for the Volkswagen Group at the start of the electric era. The joint Memorandum of Understanding (MoU) with the Chinese lithium producer ensures security of supply in the key technology of the future - and makes a decisive contribution to implementing Volkswagen’s ambitious Group goal of launching the largest E offensive in the automotive industry and has projected 22 million

offensive in the automotive industry and has projected 22 million E vehicles worldwide by 2028.

The Volkswagen Group is pressing ahead with the fundamental system change in individual mobility and is consistently focusing on electric drives. Over the next ten years, the Group intends to launch almost 70 new e-models - instead of 50 as previously planned. This will also increase the number of e-vehicles to be built on the Group’s e-platforms in the next decade from 15 million to 22 million.



THE SOLUTION



In 2017 the Manono District was described by researchers from China's Ministry of Land & Resources as "the Escondida of Lithium"



COMPANY OVERVIEW



**Well capitalised
with a tight
register, minimal
institutional
presence yet
& very strong
trading liquidity
@ ~\$1.8 m / day
last 12 months**

Capital Structure

ASX Code	AVZ
Share Price (April 23 2019)	\$0.042
Share outstanding	2.283bn
Market Cap (A\$)	\$91.3m
Cash Mar 31 2019 (A\$)	\$12m
Debt	Nil
Enterprise Value	\$79.3m
Avg Daily trading liquidity last 12 months (A\$)	\$1.8m

Key Shareholders

Huayou Cobalt	9.3%
Management & Associates	8.3%
Lithium Plus	3.5%
Top 20 Shareholders	30.8%
# of Shareholders	9,870

AVZ Share Price and Volume





INVESTMENT CASE



AVZ is focused on taking the biggest AND one of the highest grade Li₂O deposits on the ASX into development



A Lithium Development Company

- An emerging Li₂O producer controlling a very large & high grade deposit
- Management have decades of African mine development experience;
- Key strategic shareholders with strong lithium industry credentials.



Progressing a Definitive Feasibility Study Now

- Scoping Study demonstrates outstanding project economics
- Pre-tax, pre-royalties NPV₁₀ (100% basis) of US\$1.79bn
- IRR of 93%
- Multi decade 2mtpa operation



Substantial Resource Upside Remains

- 400Mt @ 1.66% Li₂O - additional resource improvement expected
- Further 4 pegmatites to be explored over 13.5m strike length
- High grade intersections of up to 4%+ Li₂O at Carriere de l'Este discovery still to be appraised.



Exceptional Quality Deposit

- Potential for long term 20yrs + production at competitive FOB opex;
- Very low level of deleterious elements such such Fe, Phosphorous, F and Mica;
- Production of premium priced +6% concentrate anticipated



Modest Valuation vs Resources

- EV of ~ \$79, \$12M net cash , debt free
- Largest, highest grade Li₂O deposit on the ASX + the largest contained tin deposits on the ASX;
- AVZ share price has tracked lithium but ignored substantial progress at Manono in the last 18 months;



BOARD & MANAGEMENT



AVZ Team has decades of in-country DRC expertise + project definition and development experience



Nigel Ferguson
Managing Director
(BSc Geology,
FAusIMM, MAIG)



Graeme Johnston
Technical Director



Rhett Brans
Non-Exec Director
(Dip. Engineering (Civil))

Hongliang Chen
Non-Executive Director

Peter Huljich
Non-Executive Director

Serge Ngandu
Director Corporate
Affairs
(Dathcom Mining)

A geologist with over 30 years' experience having worked in senior management positions for the past 18 years. He has experience in the exploration and definition of precious and base metal mineral resources throughout the world, including DRC, Zambia, Tanzania, Saudi Arabia, South East Asia and Central America. He has been active in the DRC for 15 years in gold and base metals exploration and resource development. Mr Ferguson is also Director of Okapi Resources Ltd (ASX: OKR).

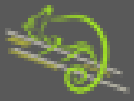
Mr Johnston is a geologist with over 30 years' experience in Australia, the Middle East, Romania, Malaysia and the DRC. He worked on various gold projects before joining Rio Tinto and then Midwest Corp where he was the Principal Geologist during its sale to Sinosteel Corporation for US\$1.4 billion. Following this, he was Technical Director for 9 years with Ferrowest Ltd and contributed to the successful completion of the Feasibility Study for the Yalgoo Pig Iron Project. His technical experience is focused on the transition between orebody delineation and mine opening and has worked on over five projects that resulted in new mines being commissioned. He joined AVZ team May 2017 as Project Manager for Manono.

Mr Brans is an experienced director and civil engineer with over 45 years' experience in project developments. He is currently a Non-Exec Director of Australian Potash Limited and Carnavale Resources Ltd. Mr Brans was a founding director of Perseus Mining Limited and served on the boards of Syrah Resources Ltd, Tiger Resources Ltd and Monument Mining Ltd. He has been involved in the management of feasibility studies and the design and construction of mineral treatment plants for a range of commodities including for gold in Ghana, copper in the DRC and graphite in Mozambique. He has extensive experience as an owner's representative for several successful mine feasibility studies and project developments.

Mr Hongliang Chen is a nominee of the Huayou Cobalt Group to the AVZ Board. Mr Chen joined the Huayou Cobalt Group in May 2002 and is currently a director and the president of the parent company, Shanghai stock exchange-listed Zhejiang Huayou Cobalt Co Ltd. Mr Chen previously worked in management positions at the Agricultural Bank of China, Tongxiang Branch Investment Corporation Tongxiang Securities Department and Shenyin Wanguo Securities Co Ltd.

Mr Huljich has over 25 years' experience in the legal, natural resources and banking sectors with a particular expertise in capital markets, mining, commodities and African related matters. He has worked in London for several prestigious investment banks, including Goldman Sachs, Barclays Capital, Lehman Brothers and Macquarie Bank with a focus on Commodities and Equity and Debt Capital Markets and has extensive on the ground African mining, oil and gas and infrastructure experience as the Senior Negotiator and Advisor for Power, Mining and Infrastructure at Industrial Promotion Services whilst resident in Nairobi, Kenya. Peter holds Bachelor of Commerce and an LLB from the University of Western Australian and is a Graduate of the Securities Institute of Australia with National Prizes in Applied Valuation and Financial Analysis. Peter is also a graduate of the AICD Company Directors Course. Peter is also an Independent Non-Executive Director of ASX Listed Kogi Iron Limited ASX:KFE.

A metallurgist with 34 years experience in the African mining industry covering various commodities including PGMs, uranium and base metals as well as in the design, commissioning and operation of mineral processing plants. He was formerly Director of Hatch – Industrial Minerals (2004-06), Project Director for Areva Resources Centrafrique (2008-12), and a Business Development Executive, Worley Parsons from 2012 focussed on project development opportunities in Africa, including the DRC. From 2016 he was Partner focussing on business development and metallurgy for DRC at Madini Metals, a specialist African mine developer and operator. Mr Ngandu joins the team as Director of Corporate Affairs for Dathcom Mining the DRC subsidiary.



AVZ vs LITHIUM PRICES



AVZ share price has historically tracked lithium prices but has ignored genuine value creation at Manono over the last 18 months

AVZ Share Price vs Asia Lithium Carbonate CIF Swap 2014-19



AVZ Share Price versus Manono Project Progress 2018-19



Source: Bloomberg



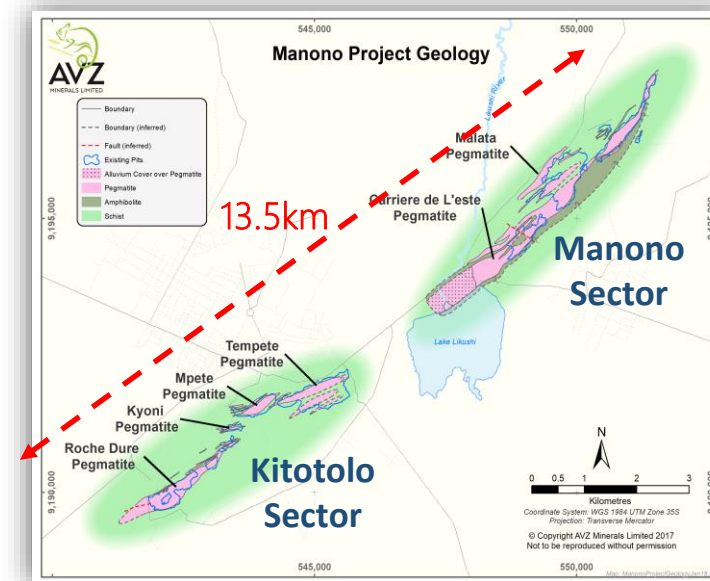
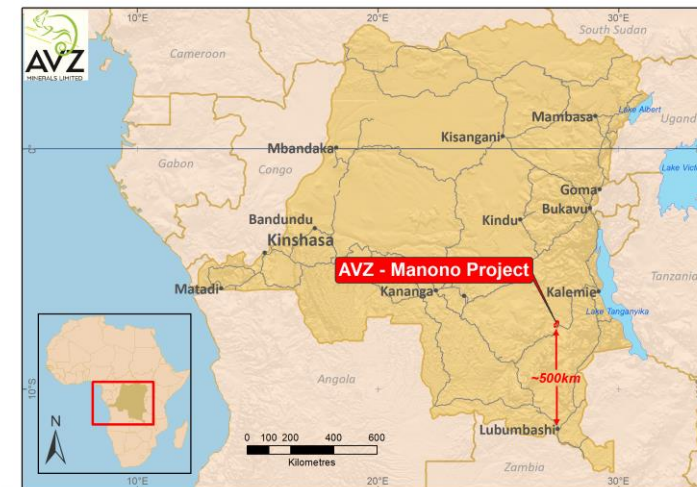
MANONO MINING DISTRICT



Manono has a multi decade history of mining & contains multiple thick pegmatites of which Roche Dure is the first to be systematically drilled

- Located in the Democratic Republic of Congo, Manono was first discovered by the Belgians as a tin and tantalum mine in 1910, with mining and transportation of product to Europe from 1919 to 1982.
- Its lithium potential was first identified in 3 separate USGS reports from the 1970s, as well as a Belgian Government Metallurgical study (1980) and historical test work that produced a 6.82% lithium concentrate – well above industry standards of today of around 5%
- The current Manono tenement area - 60% owned by AVZ – contains 6 pegmatites spread out across a gross strike length of 13.5km on PR13359
- Roche Dure pegmatite is AVZ’s initial exploration & development focus

Dimensions of the main Manono pegmatites			
Pegmatite	Length (m)	Thickness (m)	General dip, SE
Roche Dure	2700	220	40°
Kyoni	400	20	26°
Mpete	1000	60	26°
Tempete	1700	60	26°
Carriere de l’Este	5400	230	20-40°
Malata	1300	20	10-15°





ROCHE DURE SCOPING STUDY – KEY OUTCOMES



Outstanding Scoping Study Economics :
NPV₁₀ of US \$1.79 bn & an IRR of >90 %¹

¹100% Basis

For personal use only

- Roche Dure Scoping Study delivered to ASX Oct 2018

ASX ANNOUNCEMENT
9 October 2018

AVZ MINERALS LIMITED

Scoping Study Highlights Strong Economic Potential of Manono Lithium Project

Highlights

- Scoping Study confirms potential for a world class, high margin, long life mining project.
- AVZ intends to proceed to a Full Feasibility Study (FFS) which it expects to be completed in Q2 2019.
- The potential for tin by-product credits was not taken into consideration in this analysis. It is expected that these credits will be included in the FFS.

Cautionary Statements: Scoping Study Parameters

The Scoping Study referred to in this announcement has been undertaken to determine financial aspects of potential future operations at the Manono Lithium Project and to help drive future work programs. It is a preliminary technical and economic study of the potential viability of the Manono Lithium Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of Ore Reserves. Further exploration and evaluation work and appropriate studies are required before AVZ Minerals Limited (AVZ) will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.

All costings and projections in financial modelling were prepared based on Measured Resources (16.5%), Indicated Resources (40.3%) and Inferred Resources (43.17%) as announced by AVZ on the 2nd August 2018¹. The Company has concluded that it has reasonable grounds for disclosing the economic assessment or production target that includes a modest amount of Inferred material. However, there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that

AVZ Minerals Limited
Level 2, Suite 9
389 Oxford Street
Mt Hawthorn, WA 6016
Australia

T + 61 8 6117 9397
F + 61 8 6117 9330
E admin@avzminerals.com.au
W www.avzminerals.com

ABN 81 125 176 703

Directors
Managing Director: Nigel Ferguson
Technical Director: Graeme Johnson
Non-Executive Director: Brett Brans
Non-Executive Director: Hongliang Chen
Non-Executive Director: Guy Loando

Issued Capital
1,888 M Ordinary Shares

Market Cap
\$180 M

ASX Code: AVZ

* Scoping study numbers are accurate +/- 35% please refer to 9 Oct 2018 ASX Release & 19 Nov 2018 Update

↑ \$\$\$

- Base case project yields pre-tax, pre-royalties NPV₁₀ of US\$1.79bn (100% basis);
- an estimated IRR greater than 90%;
- 3 year payback & <12 month estimated build to commissioning

Scale

- 20 yr mine-life based on 2 mtpa open pit mine scenario consuming only 10% of JORC Resource;
- peak production of 440ktpa of Li₂O - 33% larger than Pilgangoora Stage 1

Costs

- Capex estimated at US\$150-160m
- with FOB operating costs basis Dar es Salaam of US\$297/tn of concentrate of which
- mining + processing is US\$120/tn of concentrate

Quality

- Very low strip ratio of 0.7:1
- High feed grade of 1.58%
- Very low level of deleterious elements, recovery at 80%
- Production of high grade SC5.8%, likely to command a premium price

Upsides

- Expanding throughput to 5mtpa
- +300,000tns of tin resource & byproduct credits
- potential for a SC6.3% Li₂O DMS concentrate
- potential for high grade blending of ore from Carriere de l'Este discovery



MANONO – ROCHE DURE JORC RESOURCE



*JORC Resource is 47 %
Measured & Indicated...
with a 0.5 % cut-off...*

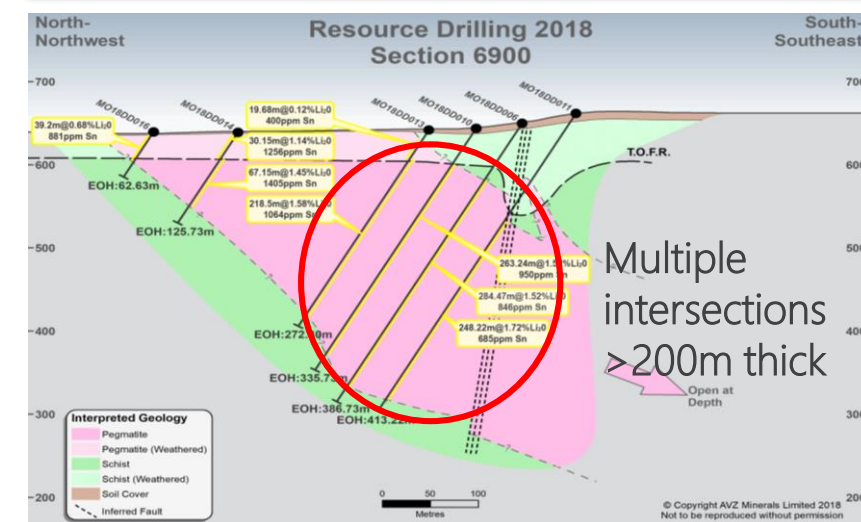
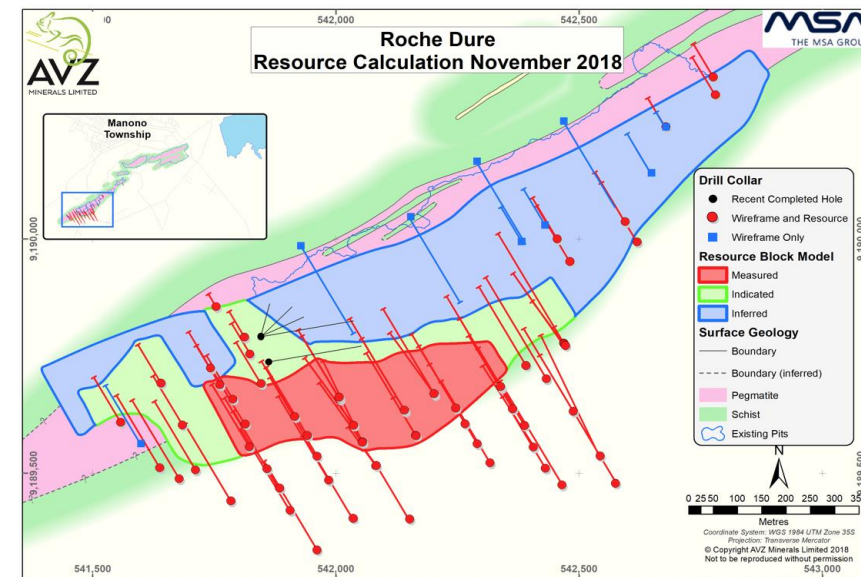
*Excludes recent drilling
at Roche Dure...*

*Excludes the recent
Carriere de l'Este
discovery ...*

*Excludes undiscovered
potential from 4
remaining pegmatites*

- Maiden JORC resource achieved with fraction of the no. of drill holes and exploration costs of ASX peers
- 63 drill holes over 1,600m strike length for 27,500m of diamond drilling and geological data from 73 drill holes to enable interpretation of a geological model
- Invested ~\$21M in exploration & evaluation for a finding cost of ~A\$3/tn of contained Li₂O
- Outstanding drilling results including a best intercept of 351m and highest lithium grade of 1.77%

Roche Dure JORC Resource					
JORC Category	TONNES MILLIONS	Li ₂ O %	Sn ppm	Ta ppm	Fe ₂ O ₃
MEASURED	93.5	1.69	811	34	0.94
INDICATED	96.3	1.64	759	34	0.97
INFERRED	210.7	1.65	719	32	1.02
TOTAL	400.4	1.66	750	33	0.99



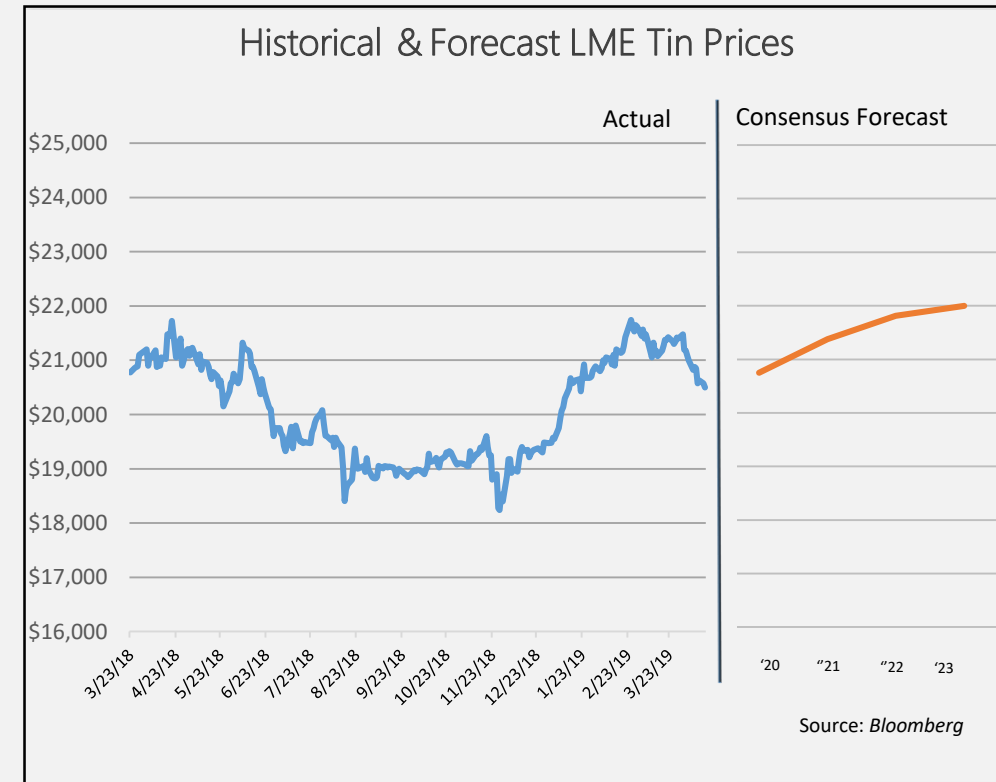


TIN UPSIDE YET TO BE INCLUDED IN ROCHE DURE NUMBERS



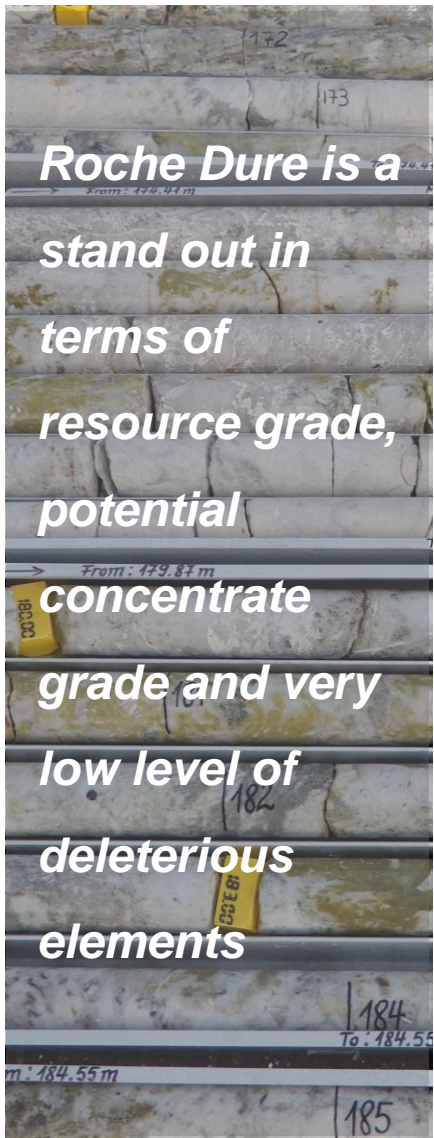
Roche Dure also contains a bulk tonnage but low grade tin (Sn) deposit, and one of the largest globally in terms of contained Sn & not in the financial modelling numbers yet

- Tin is a familiar element to DRC mining industry having been produced at Manono for 60 years and the country is Africa's biggest tin producer
- Its set to become even bigger as TSX-V listed Alphamin's Bisie Project is currently ramping up to nameplate production of 9ktpa at one of the world's highest grade tin projects
- With a JORC Resource of over 300,000tns (~50% M&I), AVZ's Roche Dure tin resource ranks as the largest tin deposit controlled by an ASX listed company, as well as being one of the biggest contained Sn deposits globally
- With LME tin price @ >US\$20,000 the Project's tin resource and its potential byproduct credits have the potential to materially improve the Roche Dure economics as a byproduct credit is yet to be factored in





VERY HIGH RESOURCE QUALITY = PRODUCT PREMIUM



- There are multiple aspects to resource quality: Resource grade, Concentrate grade and Purity

1. Resource Grade – Impacts directly on mining costs. Roche Dure’s resource grade is estimated at 1.66% and the only operating mine with a higher grade is Greenbushes (2%). This yield’s a low mining costs at Roche Dure of an estimated US\$56/tn of concentrate. By comparison, Pilbara Minerals’ Pilgangoora Stage 2 (strip project 3.8:1) is estimated to have a mining cost of US\$104 (1.25% resource grade)

2. Concentrate Grade – Existing producers & planned projects have a concentrate grade of 5.8%-6%. The Roche Dure Scoping Study estimates a concentrate grade of 5.8% but initial AVZ met work suggests Roche Dure could produce up to 6.3% DMS concentrate – which would be one of the highest levels in the industry and historical test work produced a 6.82% Con. The consequence of a lower grade is that more concentrate is required to produce the same amount of lithium carbonate. Since the Chinese converter plants are limited in calciner capacity, these plants will produce less lithium carbonate, or other lithium chemicals, as a result of a lower grade spodumene concentrate. Therefore higher grade Con is more sought after – this is evidenced by higher prices for 6% material.

3. Purity – Presence of other minerals in the concentrates can have two main impacts on the converters: i) greater amounts of impurities will be extracted with the lithium and make it more difficult for them to produce battery grade lithium carbonate & ii) elements such as iron and phosphorous can melt at low temp or form eutectic mixtures with other minerals which then melt in the calciner. The molten minerals form clinker (lumps) which can become a headache for converters in the operation of their plant as well as lowering the amount of lithium that can be extracted in the subsequent leach

Industry observers have concluded that higher quality Con could be highly sought after as blending material and command its own pricing mechanism like higher energy thermal coal or high grade iron ore, this augers well for Roche Dure

Roche Dure Deleterious Elements – Nagrom Independent Metallurgy Report

Fluorine (F)	0.1%	The possibility of toxic fumes of fluorine or hydrogen fluoride being released during processing of spodumene concentrates to extract lithium
Phosphorous (P₂O₅)	0.3%	Melts in the calciner and compromises quantity of lithium extracted
Iron Oxide (Fe₂O₃)	0.4%	Melts in the calciner and compromises quantity of lithium extracted. Newer projects are in the 1.3-1.5% range



'THE ESCONDIDA OF LITHIUM'...



The 400 Mt JORC Resource at Roche Dure is the largest and highest grade hard-rock lithium deposit controlled by an ASX listed company¹

¹ Excluding Rio Tinto's Jadar deposit 136mt @1.86%

Grade and Tonnage of Selected Lithium Hard Rock Peers

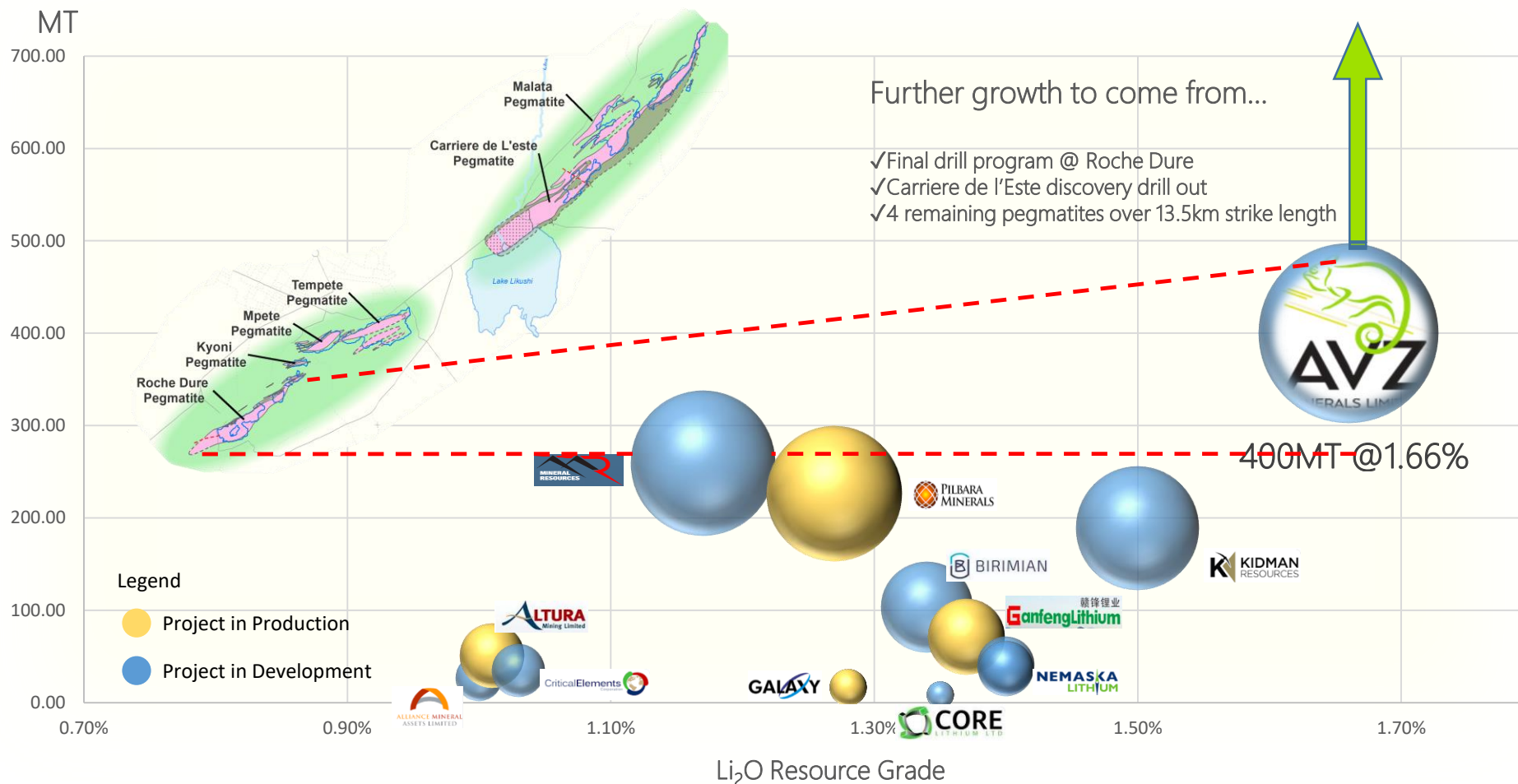


Chart represents tonnes of ore from disclosed Resource estimates and recent company presentations as published by respective project owners. These estimates may have been prepared under different estimation and reporting regimes and may not be directly comparable. AVZ accepts no responsibility for the accuracy of resource estimates other than its own.

Source: Company reports



CARRIERE DE L'ESTE - ANOTHER ROCHE DURE?



The Carriere de l'Este discovery – potentially bigger than Roche Dure & could be in a class of its own globally with grades of up to 4.65% Li₂O

- Located 5km north of Roche Dure, Carriere de l'Este is the largest of the 5 remaining pegmatites at Manono and a 6 hole, wide-spaced, reconnaissance diamond drill program was conducted over it in late 2018
- Results from initial program have been extraordinary, indicating a near surface, flat dipping deposit up to 200m thick and a best intersection of 89m @ 2.01% Li₂O
- Assay results in final 2 holes yielded 90 samples returning >2% Li₂O including 5 samples over 4% with a highest value of 1m @ 4.65% - almost unheard of in the industry
- An exploration target of 400-600MT @ 1.3-1.7% Li₂O contained has been derived within a mapped strike length of 1500-3000m with a thickness of 200-240m¹ - potential for future high grade blending with Roche Dure

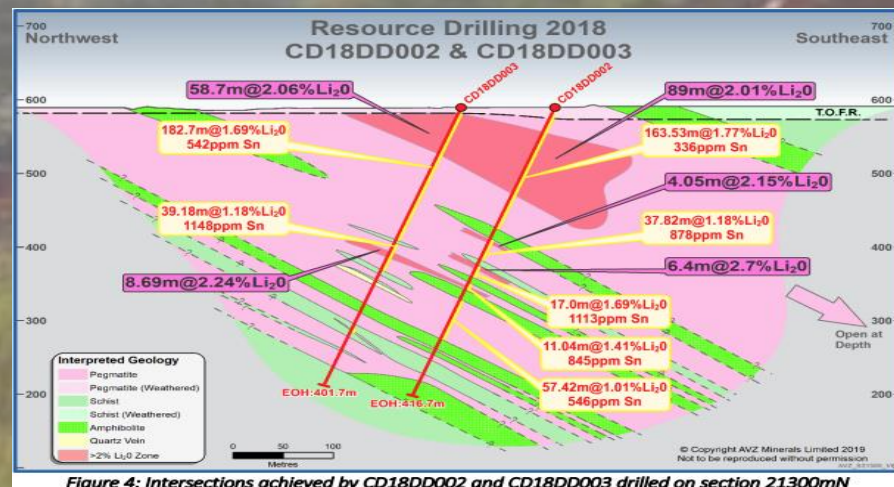


Figure 4: Intersections achieved by CD18DD002 and CD18DD003 drilled on section 21300mN

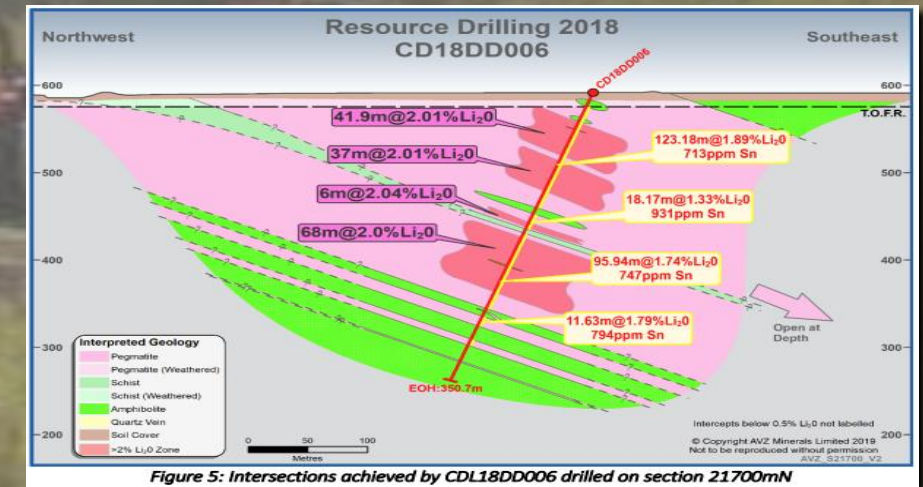


Figure 5: Intersections achieved by CD18DD006 drilled on section 21700mN

¹ Assumes SG of 2.65-2.8g/cm³, initial 6 diamond holes, a data base of 912 independently reported assay results and geological data 2,690m of drill core

*The exploration target is conceptual in nature and further exploration will be required and that it is uncertain if further exploration will result in the estimation of a Mineral Resource Estimate.

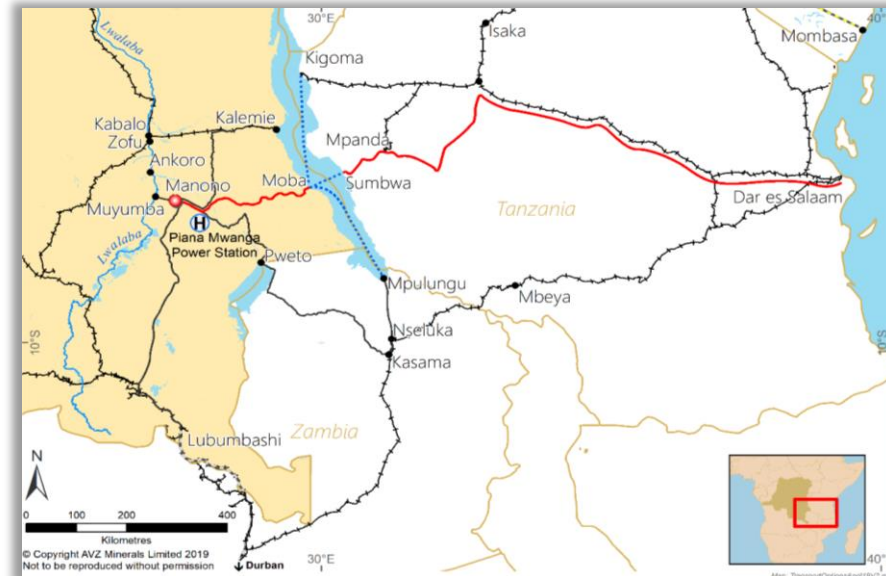


MANONO LITHIUM EXPORT ROUTES



AVZ intends to export concentrate eastwards through Tanzanian port of Dar es Salaam

- Of the 3 routes to market for DRC mineral output, the main route is south via Lubumbashi to Durban in South Africa
- Roche Dure concentrate is anticipated to go east via Tanzanian port of Dar es Salaam, although the option of exporting south is also available
- US\$350m upgrade of Dar es Salaam Port 50% complete by Mar '19 – includes deepening berths and entrance channels (Dar es Salaam Maritime Gateway Project - DSMGP)
- The port is a key export route for central Africa with about 35% of cargo at the port in transit to / from Tanzania's landlocked neighbours
- Recently, Canadian junior Alphamin banked its US\$130m Bisie tin project - including a US\$80m debt facility supplied by Sprott, Tremont (Denham Capital) & others – employing an eastern export solution via trucking tin ~ 1600km from DRC to Mombassa Port (~400km north of Dar es Salaam)



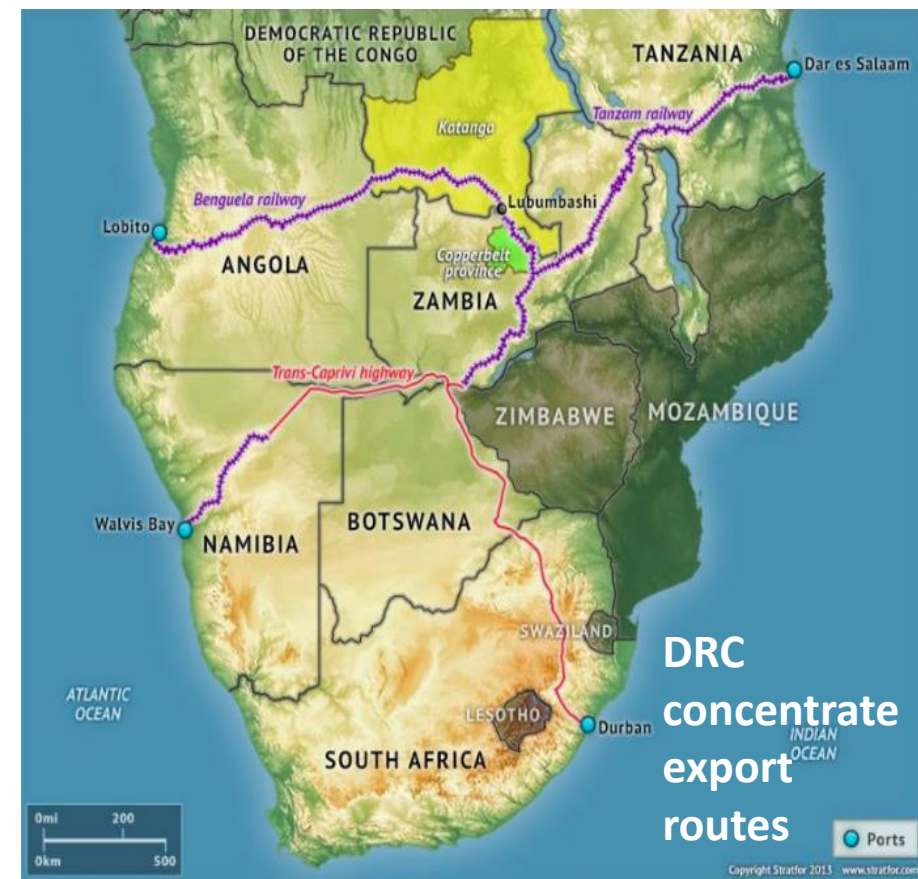


DRC PRODUCTION & EXPORTS



DRC is a critical cobalt and copper producer with exports going south through South Africa and east through Tanzania

- The DRC is one of the most mineral prospective countries in Africa
- Exports ~US\$3.5bn of commodities products annually, supplies 60-70% of global cobalt production and is a major supplier of copper from high grade mines
- Logistics dominated by DRC's landlocked nature but there are 3 possibilities for export, south to Durban or Richards Bay in South Africa and east through Dar es Salaam in Tanzania and most recently west to Lobito in Angola (& sometimes through Walvis Bay in Namibia)
- Despite its reputation for political risk it has attracted some of the most well known mining companies and financiers





BIG PLAYERS ARE COMMITTED TO DRC



April 2019
commentary by
two of the
biggest players
in DRC has
been positive

Minjng Journal **SELECT** EXCEPTIONAL INVESTMENT OPPORTUNITIES REGISTER NOW
24-25 JUNE 2019 LONDON SELECTED BY MINING JOURNAL

Minjng Journal Edition Webinars Research Events Market Data NEWSLETTERS TRIAL SUBSCRIBE LOGIN

EXPLORATION/DEVELOPMENT FINANCE COMMODITIES VIEWPOINT METS INVESTOR MINE RISK MANAGEMENT FUTURE OF MINING

ALL SECTIONS

Ivanhoe recommits to DRC investment

Hot on the heels of Barrick Gold last week reaffirming its commitment to the Democratic Republic of Congo, major project developer Ivanhoe Mines also re-committed to invest and help grow the country's economy following a weekend meeting with new president Félix Tshisekedi in Washington, DC.



Ivanhoe Mines has committed to invest in the DRC as it progresses its world-class K...

Mine Risk Management > Politics

Tshisekedi was in the US last week on his first official state visit, during which he met with several multinational mining company leaders, including Ivanhoe's co-chairmen Robert Friedland and Yufeng 'Miles' Sun.

09 April 2019 Ivanhoe said Monday it expressed strong support for the president's commitment to attract foreign investment and to accelerate the development of the DRC's mineral sector.

Minjng Journal
NEW CONTENT ANNOUNCEMENT
METS INVESTOR

MINING.com NEWS - MARKETS PEOPLE GROUPS JOBS COURSES MORE - Q ADVERTISE Sign In Join


Indigenous Peoples and Mining Course Series SIGN UP for the Africa Digest

The New D98 High Speed Diesel Engine Series Empower your Business made for productivity at low operating costs to achieve your goals Discover now >

Barrick upbeat about new DRC president's stance on mining, investment

Cecilia Jamasmie | Apr. 3, 2019, 5:02 AM |

PEOPLEMIN FACEBOOK LINKEDIN TWITTER EMAIL PRINT



Barrick's Kibali is one of Africa's biggest gold mines. (Image from archives.)

Barrick Gold's (TSX:ABX) (NYSE:GOLD) executive chairman, John Thornton, said Wednesday he was encouraged by the Democratic Republic of Congo's (DRC) newly elected president Felix Tshisekedi's vision of attracting foreign investment and supporting the development of the country's mining industry.

The Canadian miner, which operates the country's Kibali mine, one of the world's ten largest gold mines, said Tshisekedi had confirmed his intention of working with mining companies to keep expanding the nation's gold sector.

"We look forward to continue making a significant and growing contribution to the DRC's economy and to unlocking the enormous value of its mineral potential,"

President Felix

Grease Transfer Coupling Easy, safe and fast MEET THE BANLAW GTX

Gold \$1,277.50 0.31%
Silver \$14.91 0.46%

More in markets

LIKE US ON FACEBOOK FOLLOW @MINING

Maximize Tailings Capacity and Freeboard Measurement Determine the remaining capacity of your tailings storage facility and meet reporting requirements.

PhotoSat



ROCHE DURE COST COMPETITIVENESS



A longer logistics chain is a common feature of new lithium supply from emerging hard rock miners

- Future new concentrate supply is likely to come from more remote projects
- The mean haulage distance to port for the WA producers is 155km – for the emerging players it is 700km
- Manono logistics chain is clearly a long one but the Roche Dure Project remains highly cost competitive vs emerging peers AND existing WA supply due to :
 - i) very low mining and processing costs; and
 - ii) a generally lower opex environment vs WA
- Potential Tin by-product credits from the substantial tin resources at Roche Dure are yet to be included in opex estimates





FORWARD PLAN FOR ROCHE DURE



Delivering DFS in Q2 2020 is No. 1 focus:

- Complete reserve calculation for infill and exploration drilling programs completed to-date. Which will:
 - Infill and expand the current resource base
 - Substantially upgrade the existing resource categories
 - Confirm geotechnical parameters for open pit mine planning
- Detailed metallurgical test-work in Q2 2019 based on 13 tonnes of whole core samples.
- Confirm transportation route
- In parallel, the Company intends to continue engaging with potential investment & off-taker partners and finance providers.

AVZ is targeting construction commencing in late 2020 and commissioning within following 12 months

Activity	CY2019				CY2020				CY2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Met Test Work Study	■	■	■									
Feasibility Study		■	■	■	■	■						
Transport route confirmed			■	■	■							
Licensing, Permitting & Environmental Approvals					■	■						
Detailed Engineering and Procurement					■	■	■	■				
Construction							■	■	■	■	■	
Commissioning											■	■

■ Extra time provided if necessary



WHY AVZ?



- ✓ Share price has high correlation to lithium prices and provides exceptional leverage to its recovery
- ✓ Roche Dure is a world class asset in terms of tonnage, grade and purity – as well as the one of the largest tin resources globally
- ✓ High quality project with exceptional IRR, low capital intensity, competitive opex and multi-decade production outlook
- ✓ Low discovery cost district combined with multiple pegmatites leaves substantial scope for continued resource growth outside of world class Roche Dure pegmatite
- ✓ 2019 a pivotal year of news flow in terms of DFS delivery for Roche Dure, Final Investment Decision & financing
- ✓ Strategy of fast track production focus at Roche Dure with short estimated construction time (<12 months)

THANK YOU



Roche Dure Pit

Main Manono Town

Mpete South Pit

Mpete Centre Pit

Mpete North Pit

Tempête Pit

Company Contacts

Nigel Ferguson - Managing Director

Leonard Math - Company Secretary

E: admin@avzminerals.com.au

T: +61 8 6117 9397

Registered Office

Level 2, 8 Colin Street, West Perth WA 6005

