



Quarterly Activities Report for the Quarter ending June 30, 2019

Highlights

- Resource Upgrade at Roche Dure prospect makes the Project the largest JORC Measured and Indicated Lithium hard rock resource globally;
- DFS progressing and AVZ continues to target delivery due in Q1 2020;
- Strategic relationship formed with Hanyou to assist in financing and logistics for Manono Project;
- Equity ownership at Manono Project potentially increased by 5% in a highly NPV accretive option transaction, with further increase in ownership planned;
- 5Mtpa scenario Scoping Study delivered highlighting a pre-tax, pre-royalties, NPV₁₀ (100% basis) of US\$2.63bn & IRR of 64%;
- Balance sheet remains strong with \$8.7m cash and no debt

ASX ANNOUNCEMENT

31 July 2019

AVZ Minerals Limited

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Directors

Managing Director: Nigel Ferguson
Technical Director: Graeme Johnston
Non-Executive Director: Rhett Brans
Non-Executive Director: Hongliang Chen
Non-Executive Director: Peter Huljich

Market Cap

\$130 M

ASX Code: AVZ

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AVZ Minerals Limited (ASX: AVZ, “The Company”) is pleased to provide the following report on its activities for the Quarter ended June 30, 2019.

The capital raised by AVZ in the March Quarter was quickly put to effective use and the Company delivered on a number of its goals during the June Quarter. The huge increase in Measured and Indicated Mineral Resource at the Roche Dure prospect was a particularly important achievement as it now sees the Company pivot from the strictly exploration phase of the Manono Lithium and Tin Project (“Manono Project”) into the development phase.

AVZ’s Managing Director, Nigel Ferguson noted: “It is clear that momentum is building rapidly for AVZ and its shareholders, whether it be operationally at Roche Dure, with further boxes ticked on the Mineral Resource and Definitive Feasibility Study (“DFS”) front, or corporately with closer technical alignment with our largest shareholder Huayou and adding relevant expertise to the Board in anticipation of financing and development. The fundamentals of the Company have never been stronger and we have a healthy cash balance to takes us through an intense period of activity over the balance of 2019 and beyond.”

PROGRESS AT ROCHE DURE

Resource Upgrade

During the Quarter, the Company announced a material JORC Mineral Resource upgrade at Roche Dure prospect. Assays from the final drilled holes in 2018 were received and analysed over the March and June Quarters and integrated into the existing resource model.

As expected, the impact of this was to substantially improve the resource quality, rather than grow the resource tonnes. Accordingly, the Manono Project’s Measured and Indicated Mineral Resources increased 41.7% to 269Mt grading at 1.65% Li₂O. Furthermore, 67% of the Project’s tonnage is now classified at this level, establishing the Manono Project as *the largest Measured and Indicated Lithium hard rock resource globally*. In addition, there was a reduction in Fe content (a potentially deleterious element), from an already low 0.99% down to 0.96%, further underlining the quality of the deposit.

With respect to the Tin content at Roche Dure, improved confidence in the Tin resource, combined with anticipated metallurgical test results are expected to see byproduct credits from Tin production factored into the Manono Project’s DFS. This has the potential to yield a material impact on the Project’s economics. Several parties have contacted the Company and expressed an interest in potential Tin and Tantalum byproduct offtake.

Already recognised as the largest lithium hard rock resource globally, Roche Dure’s Tin JORC Resource of over 300,000 tonnes Sn (50% Measured and Indicated) also ranks it as the largest Tin deposit controlled by an ASX listed company, as well as one of the largest Tin deposits globally.

5 MTPA Scoping Study Results

This Quarter the Company announced the findings of the Scoping Study for a potential 5Mtpa mine at Roche Dure. It was based on the updated 269Mt Measured and Indicated Mineral Resource and included the Independent Transport Study.

The results were extremely positive and are summarised below:

- 5Mtpa pre-tax, pre-royalties, NPV₁₀ of approximately US\$2.63 Billion (Bn) (AVZ's 60% share is approximately US\$1.55Bn) with an estimated IRR greater than 64% based on ±35% accuracy and including US\$78M in capital contingency.
- 5Mtpa Scoping Study is based on concentrate sale price assumed at US\$750 per tonne (t).
- Scope for annual production of approximately 1.1 million tonnes per annum (Mtpa) at a minimum of 5.8% Li₂O concentrate from throughput of 5 million tonnes per annum (Mtpa) (Case 2) with an average strip ratio of 0.55:1.
- The economies of scale have resulted in an even lower strip ratio of 0.55:1 and a subsequent 24% drop in mining and processing costs from US\$120/t to US\$91/t.
- The Scoping Study has yielded an exceptional and industry leading IRR of 64% having used a more conservative Li₂O price to reflect market changes in the last 7 months.
- F.O.B. Operating costs to Dar es Salaam estimated at approximately US\$323 per tonne (t) of concentrate for 5Mtpa.
- The preferred transport route has been updated and costs now estimated at US\$223/t. The route and costs will be further refined during the DFS program. However, the scale and quality of the mining operation, with low mining and processing costs, allows the project to easily bear the estimated relatively high transport cost.
- Metallurgical test work indicates recoveries of plus 80% are achievable.
- Capex for the 5Mtpa (Case 2) throughput estimated at approximately US\$380 to \$400 Million (accurate to ±35% and includes US\$78M contingency).

With the completion of the Scoping Study, AVZ is determining the optimum output level for the Manono Project as part of the DFS work being undertaken.

More detail on the Scoping Study can be found in the ASX Announcement dated 23rd May 2019 titled "5Mtpa Study Further Strengthens the Economic Potential". AVZ confirms that all the material assumptions underpinning the production target, or the forecast financial information derived from a production target, in the initial public report referred to continue to apply and have not materially changed.

DFS Update

Michael Bourguignon joined AVZ as Project Manager for the Manono Project during the Quarter to work on the DFS. He is very well suited to this role, with over 2 decades experience at developing projects in Africa, including in the Democratic Republic of Congo (“DRC”) with key roles in DFS review, financing preparation and project delivery post DFS completion.

On 9th July 2019, the engineering portion of the DFS was awarded to GR Engineering Services (“GRES”). Following the award, GRES have prepared a preliminary schedule and queries concerning the trade-offs that are yet to be decided. Other preparatory work includes developing the background section of the DFS report, developing the study report templates and early development of the process design criteria based on the preliminary characterisation test work.

The metallurgical test work for Phase 1 is nearing completion with the comminution test work completed. The results from the comminution test work are currently being reviewed and the Company will provide the results to the market once the review is completed.

Through the DFS process, the Company believes there is potential to enhance further the already impressive economics by:

- Further optimisation of transport and logistics costings;
- Improving flowsheet design through the various feasibility test work studies;
- Investigation into the rehabilitation of the Piana Mwanga hydro facility;
- Completing further test-work on credits for Tin and Tantalum recovery;
- Mining selectivity studies to quantify the economic impact of realising a higher plant feed grade.

The Company’s target time frame for the delivery of the Roche Dure DFS remains Q1 2020.

CORPORATE

Strategic Relationship with Huayou

During the Quarter, the Company strengthened its relationship with Zhejiang Huayou Cobalt Co. through its group company Huayou International Mining (Hong Kong) Limited (“Huayou”). Huayou is a substantial shareholder in AVZ and is one of the world’s largest manufacturers of cobalt chemicals for use in batteries and is active participant in the DRC mining sector.

The Company has formed a strategic relationship with Huayou for the purposes of advancing the commercialisation of the Roche Dure prospect and it views this strategic relationship with Huayou as a very strong outcome for AVZ shareholders. Huayou will provide its expertise to the Company for the completion of the DFS and for the financing of the Manono Project, specifically around project finance, offtake finance, EPCM and logistics. The Company believes this relationship will accelerate the Manono Project’s time to market.

Hongliang Chen, the President of Huayou Cobalt Group, noted at the time that Roche Dure is, "...one of the standout development projects globally in our view [with] the potential to deliver a premium grade product...".

Equity interest in Manono Project increased

Separately, the Company was very pleased to have delivered on one of its key corporate objectives this Quarter and increased its equity in the Manono Project. This was finalised in late June whereby AVZ's equity in the operating subsidiary Dathcom Mining SAS which owns 100% of the Manono Lithium and Tin Project concession, will increase by 5% upon completion of the transaction, rendering AVZ a 65% shareholder in the Manono Project. The Company is hopeful of purchasing further equity in the Manono Project.

Importantly, the terms of the transaction were very favourable to AVZ's shareholders. Only a fraction of the US\$5.5M purchase price is required to be paid upfront, with the balance payable at any time over a 36 months period. The transaction was highly value accretive for AVZ, representing an NPV₁₀ value add of circa US\$130M based on the NPV derived in the 5Mtpa Scoping Study released during the quarter.

AVZ Team Strengthened

As the Company heads inexorably towards the development phase at Roche Dure, the Board has prioritised augmenting its skills, and in particular, appointing a Non-Executive Chairman. AVZ expects to update the market further during the September Quarter with respect to the selection of a Chairman for the AVZ Board.

Peter Huljich joined the Board as a Non-Executive Director in May 2019. He is a seasoned senior African resource industry executive, having worked in the legal, natural resources and banking sectors since 1993, with a particular expertise in capital markets, mining and commodities related matters.

At the Executive level, the addition of Michael Bourguignon has already been highlighted but in addition to him, AVZ's operating subsidiary in the DRC, Dathcom Mining has appointed Serge Ngandu as Director of Corporate Affairs. Serge has a vital role to play with respect to all in-country operations in the DRC from the ground level to Government negotiations. He has 34 years' experience in the African mining sector, is Congolese and brings a large professional corporate and Government network to bare for the benefit of the Manono Project.

Manono Lithium and Tin Project Video Fly Through

The company has invested considerable effort in producing a video fly through of the Manono Project to better convey the nature and general scope of the Project to its shareholders and potential investors. This video presentation can be viewed on the AVZ Minerals website.

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For further information, visit www.avzminerals.com.au or contact:

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Competent Person Statement

The information in the document that relates to the geology of the Roche Dure pegmatite is based upon information compiled by Mr Michael Cronwright, who is a fellow of The Geological Society of South Africa (GSSA) and is a registered professional with the South African Council for Natural Scientific Professions (SACNSAP). Mr Cronwright was 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 Mrs Ipelo Gasela (BSc Hons, MSc (Eng) who is a geologist with 14 years' experience in mining geology, Mineral Resource evaluation and reporting. She is a Senior Mineral Resource Consultant for The MSA Group (an independent consulting company), is registered with the South African Council for Natural Scientific Professions (SACNASP) and is a Member of the Geological Society of South Africa (GSSA). Mrs Gasela 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.

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Information required under ASX Listing Rule 5.3.3

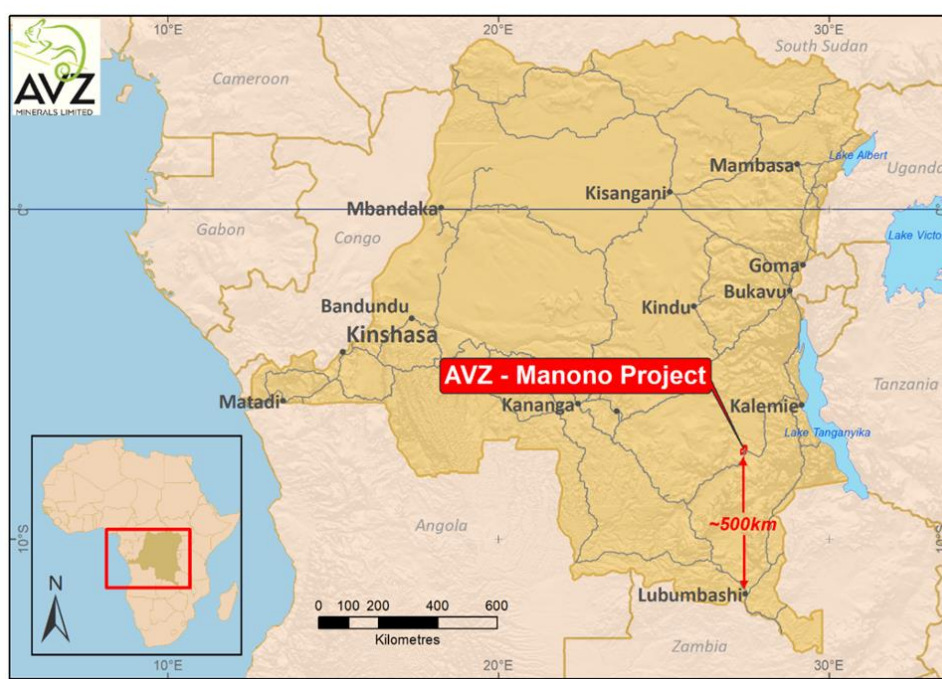
List of current mining and exploration tenements (as at 30 June 2019):

Country / Project	Tenement	Interest	Status
DRC – Manono Project	PR 13359	60%	Granted
DRC – Manono Extension Project	PR 4029 PR 4030	100%	Granted

Roche Dure Main Pegmatite Mineral Resource at a 0.5% Li₂O cut-off as at 01 May 2019:

Category	Tonnes (Millions)	Li ₂ O %	Sn ppm	Ta ppm	Fe ₂ O ₃ %	P ₂ O ₅ %
Measured	107	1.68	836	36	0.93	0.31
Indicated	162	1.63	803	36	0.96	0.29
Inferred	131	1.66	509	30	1.00	0.28
Total	400	1.65	715	34	0.96	0.29

All tabulated data have been rounded and as a result minor computational errors may occur. Mineral Resources which are not Mineral Reserves have no demonstrated economic viability. Fe₂O₃ and P₂O₅ are potentially deleterious elements.



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Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

AVZ Minerals Limited

ABN

81 125 176 703

Quarter ended ("current quarter")

30 June 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(1,771)	(16,373)
(b) development	-	-
(c) production	-	-
(d) staff costs	(240)	(1,105)
(e) administration and corporate costs	(472)	(1,775)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	13	110
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Deposit paid	-	(46)
1.8 Other (net GST/FBT activity)	41	(52)
1.9 Net cash from / (used in) operating activities	(2,429)	(19,241)
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	(40)	(381)
(b) tenements	-	-
(c) investments	(1,056)	(2,115)
(d) other non-current assets	-	-

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Mining exploration entity and oil and gas exploration entity quarterly report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements	-	-
	(c) investments	-	-
	(d) other non-current assets	-	7
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(1,096)	(2,489)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	15,000
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	190	190
3.4	Transaction costs related to issues of shares, convertible notes or options	-	(1,066)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	190	14,124

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	12,066	16,337
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,429)	(19,241)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,096)	(2,489)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	190	14,124
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	8,731	8,731

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5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	5,371	9,066
5.2 Call deposits	3,000	3,000
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	8,371	12,066

6. Payments to directors of the entity and their associates	Current quarter \$A'000
6.1 Aggregate amount of payments to these parties included in item 1.2	214
6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

	\$A'000
Payment to directors and related entities – director fees and corporate services (excluding GST)	90
Payment to director related entity – technical services (excluding GST)	124

7. Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1 Aggregate amount of payments to these parties included in item 1.2	-
7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

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Mining exploration entity and oil and gas exploration entity quarterly report

8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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9. Estimated cash outflows for next quarter	\$A'000
9.1 Exploration and evaluation	1,800
9.2 Development	-
9.3 Production	-
9.4 Staff costs	260
9.5 Administration and corporate costs	270
9.6 Other (Project interest acquisition)	715
9.7 Total estimated cash outflows	3,045

10. Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2 Interests in mining tenements and petroleum tenements acquired or increased	-	-	-	-

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Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:


(CFO & Company secretary)

Date: 31 July 2019

Print name: Leonard Math

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.