AVZ MINERALS LIMITED

ASX ANNOUNCEMENT
9 October 2019

Update: Phases 1 & 2 Metallurgical Test Work

PHASE 1 METALLURGICAL CHARACTERISATION COMPLETE AND PHASE 2 CONFIRMATORY TEST WORK CONTINUES TO PROGRESS.

HIGHLIGHTS:

- Large scale Dense Media Separation (DMS) test work utilising a 250mm DMS cyclone complete
- Minor adjustment of initial DMS250 test density likely to result in a lithia recovery closer to DMS100 results
- DMS250 crush results excellent for tin and tantalum recovery rates
- Phase 2 metallurgical test program devised to optimise concentrate grade and recovery
- Update on appointment of Non-Executive Chairman

AVZ's Managing Director, Mr. Nigel Ferguson said: "The results of our Phase 1 metallurgical program will now allow GR Engineering Services to rapidly advance the Definitive Feasibility Study, which we expect will be completed around Q1 2020.

"Further optimisation of our DMS250 metallurgical test work will aim to improve our concentrate grade and recovery rates. Tin and Tantalum recovery from the DMS250 are very encouraging and it is expected that further test work will improve on these numbers.

"I am also pleased to advise that AVZ Minerals is close to announcing a new Non-Executive Chairman, with his appointment only subject to confirmation of an official start date.

"We have spent considerable time and effort choosing a Non-Executive Chairman with an excellent and complimentary track record of relevant experience in the mining industry, specifically in the DRC."

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$103 M

ASX Code: AVZ

AVZ Minerals Limited (ASX: AVZ) is pleased to advise it has completed the comprehensive 'Phase One' metallurgical test work program designed to increase confidence levels in the Manono Lithium and Tin Project ("Manono Project") in the Democratic Republic of Congo's ("DRC") Tanganyika Province.

Large Scale DMS Test Work:

A single DMS test was conducted on a 35kg sample of Bulk Composite using a 250mm DMS cyclone (DMS250) to examine the effect of a larger scale apparatus compared to the smaller DMS100 test apparatus. In addition to examining scale-up, the larger product masses have allowed further testing to investigate tin and tantalum recovery. Tin and tantalum deportment were also investigated in the size fractions considered too small for DMS processing, <0.5mm.

Scope of Test Work:

This update presents results from a testing program encompassing:

- Industrial scale, 250 mm Dense Medium Cyclone ("DMS250").
- DMS testing of the DMS250 concentrate to separate heavy minerals (tin and tantalum) from spodumene concentrate. In addition to recovery of a heavy mineral concentrate, a HLS test was undertaken on the DMS100 heavy mineral concentrate to examine liberation of heavy minerals and identify the potential of producing separate heavy mineral concentrates.
- Separating the <0.5mm particles into specific size fractions to examine if heavy minerals can be recovered to a heavy mineral concentrate. Tabling testwork was conducted on the various <0.5mm size fractions and assays of the tables concentrates used to identify heavy mineral deportment.

DMS250 testing was conducted at separation densities identical to the DMS100 testing. The selected test sample crush size was 5.56mm, which was considered at the time as being the most economically preferable crush size. A mica rejection stage was not carried out on the sample beforehand.

Heavy mineral concentrates collected from Roche Dure samples will likely contain tin, tantalite and coltan since these are what have traditionally been mined at Manono and are still being extracted by artisanal miners.

Test Results Update

DMS testing on Phase 1 bulk sample is now complete. The final DMS250 test result is shown with comparative DMS100 test results in *Table 1*.

Table 1 - Phase 1 5.56mm Crush DMS Beneficiation Results on Roche Dure Bulk Sample

Test Description	Recovery		Grade		
	Li_2O %	SnO_2 %	Li_2O %	Fe_2O_3 %	Mica %
DMS100: 5.6mm @2.95 SG	59.8	35.6	5.8	0.50	2.7
DMS100: 5.6mm @2.95 SG + Reflux	60.9	43.1	5.9	0.45	2.1
DMS250: 5.6mm @ 2.95 SG	59.6	48.2	5.8	0.49	*not assayed*

The DMS250 lithia recovery was slightly lower than the DMS100 test results and this may be due to a higher mass recovered (compared to DMS100 tests) to the initial stage DMS concentrate. Minor adjustment of the initial DMS250 test density is likely to result in a lithia recovery closer to the DMS100 tests. This will be optimised in the Phase 2 testing program.

Tin, SnO_2, recovery in the DMS250 test was higher than the DMS100 tests and this is most likely a consequence of a better tin mass balance due to processing a larger sample mass.

Iron, Fe_2O_3, grade in the spodumene concentrate from the DMS250 test was low and within expected range. Iron concentration is well below the technical grade limit in SC6.0 concentrate ("Spodumene Concentrate 6%").

Tin deportment testwork was carried out on the DMS250 spodumene concentrate to examine the extent of tin and tantalum minerals liberation. The more liberated these heavy tin and tantalum minerals are the more likely they can be recovered to a saleable concentrate. Tin and tantalum deportment from the DMS250 spodumene concentrate are reported in *Table 2*.

Table 2 - Phase 1 5.56mm Crush DMS250 Tin and Tantalum Deportment

Test Product	Recovery			Grade		
	SnO_2 %	Ta_2O_5 %	Li_2O %	SnO_2 %	Ta_2O_5 %	Li_2O %
DMS250 2.95 Concentrate	48.2	30.7	55.0	0.36	0.01	5.77
DMS250 2.95 Concentrate: DMS100 sink at 3.3 SG	33.9	18.0	3.3	4.85	0.09	6.27
DMS250 2.95 Concentrate: DMS100 sink at 3.3 SG: HLS at 3.3 SG	31.0	16.6	0.03	53.4	1.02	0.75

Approximately 64% of the tin reporting to the DMS250 spodumene concentrate is sufficiently liberated and can potentially be recovered to a high-grade tin concentrate. Overall, 31% of the tin present in the feed sample is potentially recoverable to a high-grade tin heavy mineral concentrate. Up to 54% of the tantalum contained in the DMS250 concentrate can be recovered to a high tin grade heavy mineral concentrate. However, tantalum recovery to the spodumene concentrate is relatively low at 30.7% and overall tantalum recovery to a heavy mineral concentrate is 16.6%. Tantalum minerals are less liberated than the tin and consequently losses to waste and intermediate streams are higher than the more liberated tin minerals.

Only 0.03% of the lithia is bound with heavy minerals and lithia losses to a heavy mineral concentrate should consequently be negligible.

A summary of the pertinent <0.5mm size fraction tabling test results is presented in *Table 3*. Tabling testwork provides an indication of likely grade and recovery possible achievable using conventional gravity recovery processes like jigs, spirals and shaking tables.

Table 3 - Phase 1 5.56mm Crush <0.5mm Fraction Tin and Tantalum Deportment

<0.5mm Tabling Test Products	Recovery			Grade		
	SnO_2 %	Ta_2O_5 %	Li_2O %	SnO_2 %	Ta_2O_5 %	Li_2O %
Deslimed <0.5mm size fraction head assay	20.4	22.3	10.6	0.196	0.008	1.342
Tabling Test Concentrate 1	13.4	10.7	0.3	13.2	0.41	4.00
Tabling Test Concentrate 2	3.8	4.1	1.3	0.74	0.03	3.42
Tabling Test Combined Concentrates 1 and 2 (Calculated)	17.2	14.9	1.7	2.81	0.09	3.52

A reasonably high-grade tin heavy mineral concentrate was recovered to the Tabling Test Concentrate 1; 66% of tin and 48% of the tantalum in the deslimed <0.5mm size fraction was recovered to a heavy mineral concentrate. This represents overall tin and tantalum recoveries of 13.4% and 10.7% respectively. Tin grade in this concentrate whilst, not at saleable level, was high and when combined with the tin concentrates recovered from the spodumene concentrate is likely to be at saleable level.

The low tin and tantalum grades in the first tabling concentrate indicate a likelihood of poor heavy mineral liberation. Poor liberation of the heavy minerals in this fraction is further supported by the sharp reduction in heavy mineral grades and low recoveries in Tabling Test Concentrate 2. There may be opportunity to improve heavy mineral grades by regrinding and reprocessing. This will be further explored in Phase 2 testing.

Lithia losses to the heavy mineral concentrates are low and this is due to reasonably good liberation of lithia from the heavy minerals in this smaller size fraction.

A summary of the tin and tantalum deportment is presented in *Table 4*.

Table 4 - Phase 1 5.56mm Crush Overall Tin and Tantalum Deportment

Stream	Tin, SnO_2		Tantalum, Ta_2O_5	
	Grade (%)	Distribution (%)	Grade (%)	Distribution (%)
Feed, crush 5.56mm	0.128	100.0	0.005	100.0
<0.5mm	0.190	22.6	0.006	*20.1
>0.5mm	0.117	77.4	0.004	79.9
DMS spodumene concentrate	0.355	48.2	0.008	30.7
Heavy mineral concentrate <0.5mm	**53.38**	**31.0**	**1.017**	**16.6**
Heavy mineral concentrate >0.5mm	**13.2**	**13.4**	**0.405**	**10.7**

*Note: * Lower than Deslimed component in Table 3 due to minor differences in Calculated Head*

Looking Forward

The results of the Phase 1 program will allow GR Engineering Services ("GRES") to rapidly advance the Definitive Feasibility Study ("DFS") with expected completion Q1 2020.

Options exist to optimise the concentrate grade and recovery with the Phase 2 metallurgical program devised to support the optimal process scale and flowsheet selection.

In addition to metallurgical optimisation, the Phase 2 metallurgical program proposes to:

- To verify Phase 1 process flowsheet and design parameters;
- Examine ore variability and its effects on economic performance;
- Generate Spodumene concentrates for marketing assessment and value adding test program;
- Define a heavy mineral recovery circuit and verify Phase 1 heavy mineral recovery performance; and -
- Perform all necessary Engineering and Vendor testing.

Update on Appointment of a Non-Executive Chairman

The Company has spent considerable time and effort selecting a Non-Executive Chairman with an excellent track record of complimentary and relevant experience in the mining industry, specifically in the DRC. That candidate has now been chosen and his appointment is subject to final details being decided around the timing of his appointment due to present commitments.

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

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Competent Persons Statement

The information in this report that relates to metallurgical test work results is based on, and fairly represents information complied and reviewed by Mr Nigel Ferguson, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy and Member of the Australian Institute of Geoscientists. Mr Ferguson is a Director of AVZ Minerals Limited. Mr Ferguson 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 Resource and Ore Reserves". Mr Ferguson consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

JORC TABLE 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Metallurgical samples: Comminution testwork consisting UCS, Bond Indices, SMC and Impact testing were conducted on Comm 1, Comm 2 and Comm 3. Comm1 sample representing the upper zone ore and Comm 2 and Comm 3 representing middle and deeper sections in the ore zone. • These samples consisted of continuous intervals of full PQ core and include spodumene containing and waste intervals identified from core logging records. • Specifically Comm 1 sample consists of approximately 15m from Met01, Comm 2 sample approximately 15m from Met02 and Comm 3 sample approximately 15m from Met03. • Comm sample weights were each 115kg. • Metallurgical samples: Spodumene concentrate testwork to date has been conducted using a single bulk composite, Bulk01, 200kg mass. • This composite was prepared from sub-samples of crushed intervals of full PQ drill core. Each approximate 1m interval was crushed to 25mm with a sub-sample submitted for analysis and a further sub-sample collected for the composite. Th final Bulk01 composite sample contained low gade and high grade intervals as well as waste intervals from 4 of the 5 met holes to target a grade close to expected mining lithium grade. • Specifically Bulk01 contains sub-samples from intervals originating from Met01, Met02, Met,03 and Met04. • All met hole core intervals were shipped to Nagrom laboratories in Australia. From here core has been shipped to ALS laboratories, Australia. • HLS test results reported in this release were conducted on sub-samples of Bulk01 with a head grade of 1.58% Li_2O. • Head grades have a reporting accuracy of ±0.1%.
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).*	• The drilling was completed using diamond drilling rigs with PQ used from surface to sample through weathered to fresh-rock and HQ sized drill rods used after the top-of-fresh-rock had been intersected. Most holes are angled between 50° and 75°. All collars were surveyed after completion. All holes were downhole surveyed using a digital multi-shot camera at about 30 m intervals. Apart from drillholes MO17DD001, MO17DD002, MO18DD001 and MO18DD008, all cores were orientated.

Criteria	JORC Code explanation	Commentary
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.*	• Drill core recovery attained >99% in the pegmatite. • Based upon the high recovery, AVZ did not have to implement additional measures to improve sample recovery and the drill core is considered representative and fit for sampling. • For the vast majority of drilling completed, core recovery was near 100% and there is no sample bias due to preferential loss or gain of fine or coarse material.
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.*	• Drillhole cores were logged by qualified geologists using a data-logger and the logs were then uploaded into Geobank which is a part of the Micromine software system. The cores were logged for geology and geotechnical properties (RQD & planar orientations). A complete copy of the data is held by an independent consultant. The parameters recorded in the logging are adequate to support appropriate Mineral Resource estimation. • All cores were logged, and logging was by qualitative (lithology) and quantitative (RQD and structural features) methods. All cores were also photographed both in dry and wet states, with the photographs stored in the database. • The entire length of all drillholes were logged for geological, mineralogical and geotechnical data.

Criteria	JORC Code explanation	Commentary
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.*	• Cores were cut longitudinally in half and sampled at a nominal 1 m length. • All the exploration drilling was carried out using diamond core drilling. • The sample preparation for drillhole core samples incorporates standard industry practice. The half-core samples were prepared at ALS Lubumbashi and the ALS sample preparation facility on site at Manono, with holes from MO18DD021 onwards being prepared at Manono. • At AVZ's onsite sample preparation facility the half-core samples of approximately 4-5 kg are oven dried, crushed to -2 mm with a 500 g sub-sample being split off. This 500 g sub-sample is then pulverised to produce a pulp with 85% passing -75um size fraction. A 120 g subsample is then split from this. The certified reference material, blank and duplicate samples are inserted at appropriate intervals and then the complete sample batch is couriered to Australia for analysis. • Standard sub-sampling procedures are utilised by ALS Lubumbashi and ALS Manono at all stages of sample preparation such that each sub-sample split is representative of the whole it was derived from. • Duplicate sampling was undertaken for the drilling programme. After half-core samples were crushed at the ALS Lubumbashi and ALS Manono preparatory facility, an AVZ geologist took a split of the crushed sample which was utilised as a field duplicate. The geologist placed the split into a pre-numbered bag which was then inserted into the sample stream. It was then processed further, along with all the other samples. The drilling produced PQ and HQ drill core, providing a representative sample of the pegmatite which is coarse-grained. Sampling was mostly at 1 m intervals, and the submitted half-core samples typically had a mass of 3-4 kg.

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.*	• Diamond drillhole (core) samples were submitted to ALS Lubumbashi and ALS Manono (DRC) where they were crushed and pulverised to produce pulps. These pulps were couriered to Australia and analysed by ALS Laboratories in Perth, Western Australia using a sodium peroxide fusion of a 5g charge followed by digestion of the prill using dilute hydrochloric acid thence determination by AES or MS, i.e. methods ME-ICP89 and ME-MS91. Samples from the drilling completed in 2017 i.e. MO17DD001 and MO17DD002, were assayed for a suite of 24 elements that included Li, Sn, Ta & Nb. Samples from the drilling completed in 2018 were assayed for a suite of 12 elements; Li, Sn, Ta, Nb, Al, Si, K, Fe, Mg, P, Th and U, with Li reported as Li_2O, Al as Al_2O_3, Si as SiO_2, K as K_2O, Mg as MgO, Fe as Fe_2O_3 and P as P_2O_5. • Peroxide fusion results in the complete digestion of the sample into a molten flux. As fusion digestions are more aggressive than acid digestion methods, they are suitable for many refractory, difficult-to-dissolve minerals such as chromite, ilmenite, spinel, cassiterite and minerals of the tantalum-tungsten solid solution series. They also provide a more-complete digestion of some silicate mineral species and are considered to provide the most reliable determinations of lithium mineralisation. • Sodium peroxide fusion is a total digest and considered the preferred method of assaying pegmatite samples. • For the drilling, AVZ incorporated standard QAQC procedures to monitor the precision, accuracy and general reliability of all assay results from assays of drilling samples. As part of AVZ's sampling protocol, CRMs (standards), blanks and duplicates were inserted into the sampling stream. In addition, the laboratory (ALS Perth) incorporated its own internal QAQC procedures to monitor its assay results prior to release of results to AVZ. The Competent Person is satisfied that the results of the QAQC are acceptable and that the assay data from ALS is suitable for Mineral Resource estimation. • AVZ utilised Nagrom in Perth for external laboratory checks to compare results received from ALS Perth. The Competent Person is satisfied that the results from the umpire laboratory are acceptable and that the assay data from ALS is suitable for Mineral Resource estimation. • Geophysical instruments were not used in assessing the mineralisation.

Criteria	JORC Code explanation	Commentary
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.*	• MSA observed the mineralisation in the majority of cores on site, although no check assaying was completed by MSA. • MSA observed and photographed several collar positions in the field, along with rigs that were drilling at the time of the site visit. • Twinned holes for the verification of historical drilling, were not required. Short vertical historical holes were drilled within the pit but are neither accessible nor included within the database used to define the Mineral Resource. • Drilling data is stored on site as both hard and soft copy. Drilling data is validated onsite before being sent to data management consultants in Perth where the data is further validated. When results are received they are loaded to the central database in Perth and shared with various stakeholders via the cloud. QC results are reviewed by both independent consultants and AVZ personnel at Manono. Hard copies of assay certificates are stored in AVZ's Perth offices. • AVZ has not adjusted any assay data.
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.*	• The drillhole collars have been located by a registered surveyor using a Hi-Target V30 Trimble differential GPS with an accuracy of +/- 0.02 m. • All holes were downhole surveyed using a digital multi-shot camera at approximately 30 m intervals, except MET02 and MET03 which were drilled vertically. • AVZ provided high resolution topographic contours, surveyed at 50 cm elevation differences. . • For the purposes of geological modelling and estimation, the drillhole collars were projected onto this topographic surface. In most cases adjustments were within 1 m (in elevation). • Coordinates are relative to WGS 84 UTM Zone 35M.
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.*	• Drillhole were completed on sections 100 m apart, and collars were 50 to 100 m apart on section where possible. In situations of difficult terrain, multiple holes were drilled from a single drill pad using differing angles for each drillhole. • In the Competent Person's opinion, the spacing is sufficient to establish geological and grade continuity consistent with Measured, Indicated and Inferred Mineral Resources. • Samples were composited to 1 m intervals, since it was the most occurring sample length.

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 drillhole orientation was designed to intersect the Roche Dure Pegmatite at, or nearly at, 90° to the plane of the pegmatite. • No material sampling bias exists due to drilling direction.
Sample security	• *The measures taken to ensure sample security.*	• When utilizing ALS Lubumbashi, chain of custody was maintained by AVZ personnel on-site to Lubumbashi. Samples were stored on-site until they were delivered by AVZ personnel in sealed bags to the laboratory at ALS in Lubumbashi. The ALS laboratory checked the received samples against the sample dispatch form and issued a reconciliation report. • At Lubumbashi, the prepared samples (pulps) were sealed in a box and delivered by DHL to ALS Perth. • ALS issued a reconciliation of each sample batch, actual received vs documented dispatch. • The ALS Manono site preparation facility was managed indepedently by ALS who supervised the sample preparation. Prepared samples were sealed in boxes and transported by air to ALS Lubumbashi and were accompanied by an AVZ employee, where export documentation and formalities were concluded. DHL couriered the samples to ALS in Perth.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques were reviewed by the Competent Person during the site visit. • The Competent Person considers that the exploration work conducted by AVZ was carried out using appropriate techniques for the style of mineralisation at Roche Dure, and that the resulting database is suitable for Mineral Resource estimation.

Section 2 Reporting of Exploration Results
(Criteria listed in the previous section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The 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 Manono licence was awarded as Research Permit PR13359, issued on the 28th December 2016 to La Congolaise d'Exploitation Miniere SA (Cominiere). It is valid for 5 years. On the 2nd February 2017, AVZ formed a joint-venture (JV) with Cominiere and Dathomir Mining Resources SARL (Dathomir) to become the majority partner in a JV aiming to explore and develop the pegmatites contained within PR 13359. Ownership of the Manono Lithium Project is AVZ 60%, Cominiere 30% and Dathomir 10%. • All indigenous title is cleared and there are no other known historical or environmentally sensitive areas.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Within PR13359, exploration of relevance was undertaken by Gecamines which completed a programme of drilling between 1949 and 1951. The drilling consisted of 42 vertical holes drilled to a general depth of around 50 - 60 m. Drilling was carried out on 12 sections at irregular intervals ranging from 50 - 300 m, and over a strike length of some 1,100 m. Drill spacing on the sections varied from 50 - 100 m. The drilling occurred in the Roche Dure Pit only, targeting the fresh pegmatite in the Kitotolo sector of the project area. • The licence area has previously been mined for tin and tantalum through a series of open pits over a total length of approximately 10 km excavated by Zairetain SPRL. More than 60 Mt of material was mined from three major pits and several subsidiary pits focused on the weathered upper portions of the pegmatites. Ore was crushed and then upgraded through gravity separation to produce a concentrate of a reported 72% Sn. There are no reliable records available of tantalum or lithium recovery as tin was the primary mineral being recovered. • Apart from the mining excavations and the drilling programme, there has been very limited exploration work within the Manono region.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Project lies within the mid-Proterozoic Kibaran Belt - an intracratonic domain, stretching for over 1,000 km through Katanga and into southwest Uganda. The belt strikes predominantly SW-NE and is truncated by the N-S to NNW-SSE trending Western Rift system. The Kibaran Belt is comprised of a sedimentary and volcanic sequence that has been folded, metamorphosed and intruded by at least three separate phases of granite. The latest granite phase (900 to 950 million years ago) is assigned to the Katangan cycle and is associated with widespread vein and pegmatite mineralisation containing tin, tungsten, tantalum, niobium, lithium and beryllium. Deposits of this type occur as clusters and are widespread throughout the Kibaran terrain. In the DRC, the Katanga Tin Belt stretches over 500 km from near Kolwezi in the southwest to Kalemie in the northeast comprising numerous occurrences and deposits of which the Manono deposit is the largest. The geology of the Manono area is poorly documented and no reliable maps of local geology were observed. Recent mapping by AVZ has augmented the overview provided by Bassot and Morio (1989) and has led to the following description. The Manono Project pegmatites are hosted by a series of mica schists and by amphibolite in some locations. These host rocks have a steeply dipping penetrative foliation that appears to be parallel to bedding. There are numerous bodies of pegmatite, the largest of which have sub-horizontal to moderate dips, with dip direction being towards the southeast. The pegmatites post-date metamorphism, with all primary igneous textures intact. They cross-cut the host rocks but despite their large size, the contact deformation and metasomatism of the host rocks by the intrusion of the pegmatites seems minor. The absence of significant deformation of the schistosity of the host rocks implies that the pegmatites intruded brittle rocks. The pegmatites constitute a pegmatite swarm in which the largest pegmatites have an apparent en-echelon arrangement in a linear zone more than 12 km long. The pegmatites are exposed in two areas; Manono in the northeast, and Kitotolo in the southwest. These areas are separated by a 2.5 km section of alluvium-filled floodplain which contains Lake Lukushi. At least one large pegmatite extends beneath the floodplain. The pegmatites are members of the LCT-Rare Element group of pegmatites and within the pegmatite swarm there are LCT albite-spodumene pegmatites and LCT Complex (spodumene sub-type) pegmatites.

Criteria	JORC Code explanation	Commentary
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• See table in Appendix 1.
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.*	• Exploration Results are not reported, therefore no data was aggregated for reporting purposes. • No equivalent values are used or reported.
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').*	• Exploration Results are not reported. • There is no relationship between mineralisation width and grade. • The geometry of the mineralisation is reasonably well understood however the pegmatite is not of uniform thickness nor orientation. Consequently, most drilling intersections do not represent the exact true thickness of the intersected pegmatite, although intersections are reasonably close to true thickness in most cases.
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.*	• The relevant plans and sections are included in this document and in Appendix 2.
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.*	• Exploration Results are not reported.
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.*	• No other exploration data is available.

Criteria	JORC Code explanation	Commentary
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.*	• Diamond drill testing beneath the pit will be carried once the pit has been drained of water. • Further mining studies are planned.