AVZ
Minerals
Limited

31 October 2016

AVZ TO COMPLETE ACQUISITION OF MANONO EXTENSION LITHIUM, TIN AND TANTALUM PROJECT IN THE DEMOCRATIC REPUBLIC OF CONGO

- **The Company has finalised its due diligence investigations and agreed to complete the acquisition of the Manono Extension Project located in the south of the Democratic Republic of Congo.**
- **The Project comprises two granted exploration permits covering 242.25 km^2, surrounding the world class historic Manono Mine. The Manono Mine is potentially one of the largest lithium rich pegmatite deposits in the world.**
- **Preliminary work has confirmed the potential for lithium bearing pegmatites within the Project area as extensions to the main Manono Pegmatite:**
  - **A large, 800m by 200m highly weathered, pegmatite body has been identified in the SW of Project occurring along strike from the historical Kitatolo open pit.**
  - **Additional potential remains untested to the NE where observed structures and geology indicate further pegmatite mineralization may exist beneath lateritic cover.**

AVZ Minerals Limited (**AVZ**) is pleased to announce that, further to the announcement of 19 September 2016, AVZ has agreed to complete the acquisition of the Manono Extension Project (**Project**), following successful completion of its due diligence review. The Project is considered prospective for lithium, tin and tantalum as well as rare earth minerals.

Manono Extension Project

The Project is situated approximately 500km north of Lubumbashi town, within the Tanganyika province in the south of the Democratic Republic of Congo. The Project is located adjacent to the town of Manono, which lies on the western bank of the Lukushi, a tributary of the Luvua River. The project consists of two granted exploration permits, PR4029 and PR4030, that cover approximately 242.25 km^2.

The Project lays within the mid-Proterozoic Kibaran Belt - an intracratonic domain, stretching for over 1,000 km through Katanga and into southwest Uganda representing a world scale crustal feature. The belt strikes predominantly SW-NE and is truncated by the N-S to NNW-SSE trending Western Rift system.

The geology of the Manono area is not well documented. The Manono pegmatites are hosted by a series of quartzitic mica schists of the Lower Kibaran and are associated with volcanic and intrusive rocks of mainly doleritic composition. The schists observed in the vicinity of the Manono mine are generally steeply dipping in contrast to the sub-horizontal attitude of the pegmatite intrusion.

The main pegmatite at the historical Manono Mine (the Project being acquired surrounds but does not include the historic Manono Mine) is exposed over 14 kms although only a small portion of this has been drill tested. The main pegmatite was mined for its tin content between 1919 and 1980, during which time a total of 100 million cubic metres (Mm3) of ore were processed to produce 185,000 tonnes of cassiterite concentrate, mainly from eluvial and weathered pegmatite. Production from this ore was economic on account of its amenability to cheap mining and processing methods. The pegmatite remains open to the northeast and southwest of the historic mining activities.

The area around the Manono pegmatite is geologically very poorly mapped and understood, most probably due to the extensive soil and lateritic development. Previous surface sketch mapping and cross sections from the historic mine show in overall terms, the surface exposure of the pegmatite being mostly a shallow dipping body that double-plunges at its NE and SW ends under the mica-schist host lithology.

Within the Project there are two primary targets that have been delineated from the photo-geological interpretation (completed in 2014) that potentially represent the strike extensions of the Manono pegmatite to the NE and to the SW (shown in light pink in Figure 1 below).

Due Diligence Field Work Completed

Two Congolese geologists, led by an senior expatriate geologist, visited the project site during October to complete a due diligence reconnaissance of the licences. Initial reconnaissance mapping discovered the SW pegmatite body and extensive lateritic cover over the NE extension area. Sampling of the SW pegmatite and of soils and lateritic material was undertaken over a period of 10 days.

A total of 18 samples were collected, 6 of which were preferentially selected and submitted in person to SGS laboratories in Johanesburg, South Africa. All samples were submitted to element determination by Sodium Peroxide Fusion through combined ICP-AES and ICP-MS, which involves the complete digestion of the sample in molten flux to produce what is commonly called a "total" analysis.

SW Extension Target

Within the SW extension corridor, a pegmatite body was mapped of approximately 800m strike length and 200m width. This body straddles the western licence boundary, with approximately 600m of strike contained within PR4030.

The SW pegmatite is a very highly weathered Calcic feldspar (albite)-quartz-muscovite pegmatite with parallels in mineralization characteristics to the main Kitatolo pegmatites, such as the

development of large platy microcline feldspars crystals with a columnar nature. Given that the main Manono pegmatites appear to be a laccolith, this recently discovered pegmatite body in the SW may represent the southern extension to the main Kitatolo orebody within a well defined structural corridor.

The presence of lithium in spodumene is hard to determine in extremely weathered units, due to the volatile nature of lithium and its propensity to easily weather to clay. Selected samples of extremely weathered material in this area have returned anomalous levels of base metals at up to 6x background and rare earth elements of up to 2 times background, as well as low level anomalism of Lithium of up to 2 times background. The presence of tin, tantalum and rare earths at elevated levels could be indicative of pathfinder elements for lithium mineralization. Follow up exploration is required to intersect fresh pegmatite at depth where spodumene and therefore lithium will be less decayed.

NW Extension Target

Within the NW extension target area there is a well developed soil cover underneath which there appears to be a well developed lateritic cover. Profile sections observed in areas of artisanal workings suggest soils are around 0.5m thick and laterite between 2 and 3m thick.

This regolith profile masks the underlying rock units and thus, easy identification of any potential pegmatite bodies requires more penetrative exploration methods such as pitting or drilling. Conversely, this profile will have protected any pegmatites present from historical discovery and development. The most significant geological feature found within the target area was a laterite developed in an east west orientation with a length of approximately 2km by 1.5km. Laterites are commonly associated with pegmatite implacement.

A sample of lateritic material taken from this area was submitted for analysis. It contains higher levels of base metals as well as elevated rare earth elements.

The combination of elevated elements as reported is suggestive of the laterite 'robbing' the host lithological units of their constituent elements, which is suggestive of potential for 'blind' mineralization to lay beneath the lateritic cover. Further investigation is required to fully understand this mineralization signature.

Summary and Plans for the Future

The Kitatolo-Manono pegmatite is a world class crustal feature, extending for a strike length of at least 13km within licence PE12202 and extending for kilometres beyond as shown by the SW pegmatite body and other pegmatites some 50km away. Significant potential therefore exists for identifying further resources along the extension of the Manono and Kitatolo pegmatites which is supported by results to date.

Based on the significant strike length (approximately 8-10kms) that exists within the SW and NE extension areas which has not been tested to date, the modest, but encouraging anomalous and associated mineralization, the extensive lateritic and sand colluvium cover and the association of the SW pegmatite to the known strike line of the main Kitatolo and Manono Pegmatite, it is considered there is potential within the Manono Extension Licences for significant lithium, tin and tantalum mineralization.

AVZ initially plans to undertake a regional scale followup on the historic photogeological work, including field mapping of key target areas and pitting. Subject to results, this will be followed by soil sampling and trenching, and then selective drilling. A drilling company representative also recently visited the Project area and confirmed that access is easily achieved.

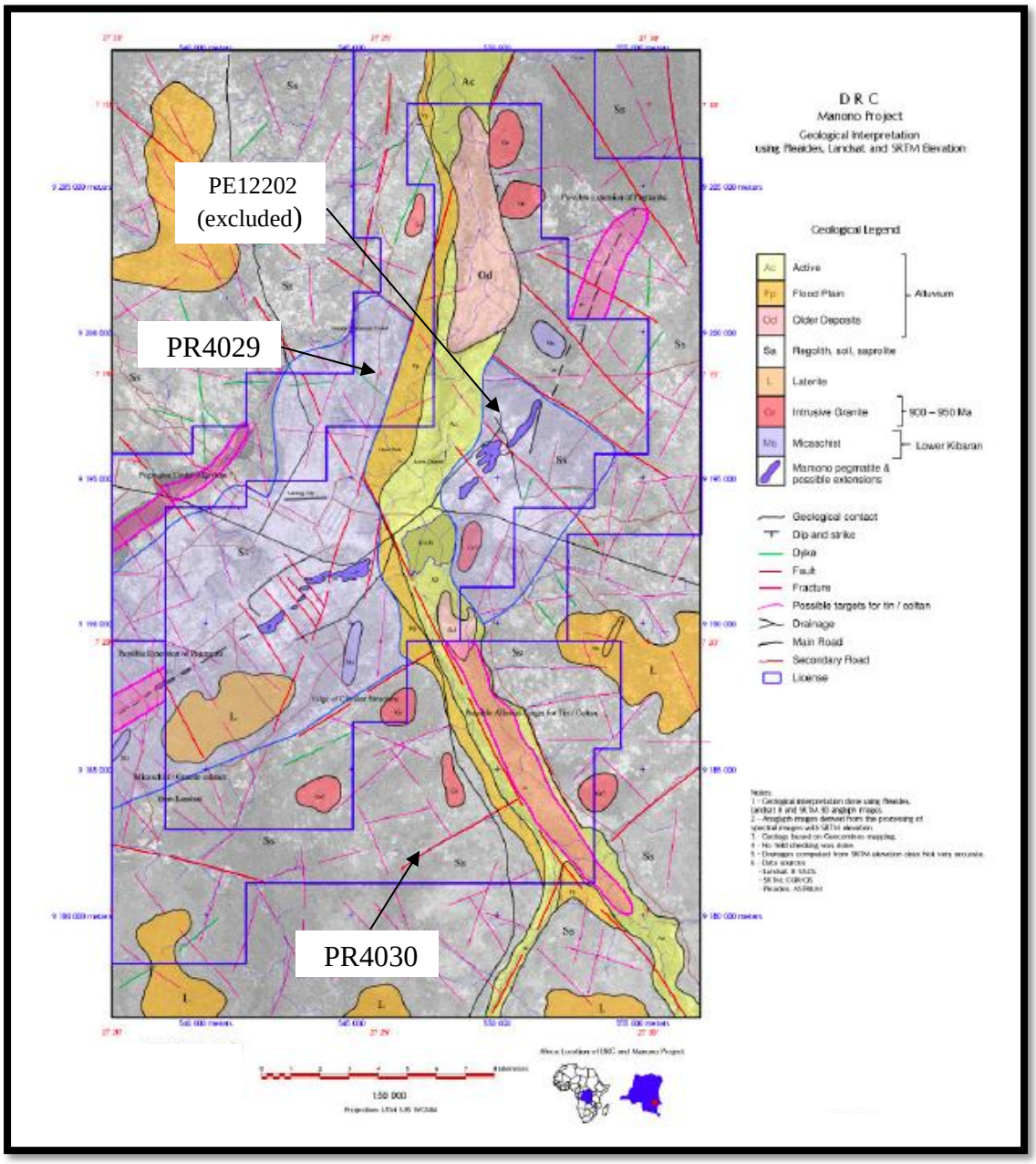

Figure 1 - Photo-geological interpretation of the Project area

Acquisition Agreement

AVZ entered into the agreement to acquire 100% of the Project from Medidoc FZE (Medidoc) on 19 September 2016, and has now completed its technical and legal due diligence. AVZ and Medidoc have agreed to revise the acquisition terms and AVZ will now proceed to complete the acquisition and issue Medidoc 30,000,000 fully paid ordinary shares in the Company and pay Medidoc US$200,000 in cash. AVZ will issue Medidoc a further 20,000,000 fully paid ordinary shares in the Company if AVZ continues to hold the Project after 30 April 2017.

Competent Person's Statement – Exploration Results

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared 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 consultant to 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 his information in the form and context in which it appears.

JORC Code, 2012 Edition – 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.	Diamond Core drilling was the principal form of historical sampling within the nearby Manono project area (PE12202), with 41 vertical drill holes. No drilling has been carried out within the Manono Extension licences to date. Rock chip sampling of mineralized areas, soils and grab samples taken from historic waste dumps were also conducted within the project.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Based on available data, there is nothing to indicate that drilling and sampling practices were not to normal industry standards at the time within the Manono licence PE12202. Rock chip samples are by their nature unrepresentative of the sampled interval or horizon.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 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.	Given the purpose of first pass exploration work, sampling practices appear to have been appropriate at the time. None of the rock chip, soils or grab samples are appropriate for, or have been used for, Mineral Resource estimates.
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.).	Previous drilling completed on the Manono Project area (PE12202) comprised 41 diamond core holes for approximately 1,600m. No details were recorded on hole diameters or bit types. No drilling was undertaken on the Extension Licences.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	There are no records of sample recovery for the drilling.

	Measures taken to maximise sample recovery and ensure representative nature of the samples.	There are no records of sample quality or potential contamination. All rock chip, grab and soil samples were taken in accordance with best practices.
	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.	There are no records for sample recovery for the diamond core drilling, consequently it is not possible to review grade bias in relation to sample recovery.
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.	Not applicable to the Manono Extension licences as no drilling has been completed.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography	Not applicable. Rock Chip, grab and soil samples were logged for lithological detail, mineral composition, alternation and level of weathering.
	The total length and percentage of the relevant intersections logged.	Not applicable
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	No record of RC drilling within the project.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No details are recorded of sample preparation techniques. Rock chip, grab and soils were collected as approximately 3kg samples then crushed manually, mixed and a 500gm subset collected for submittal to the commercial laboratory.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	There are no records of QAQC procedures for sub-sampling.
	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	No duplicate sampling has been undertaken.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sampling methods were appropriate for the material being sampled for the purposes of the sampling.
Quality of assay	The nature, quality and	Recent rock chip, grab and soil samples were

data and laboratory tests	appropriateness of the Assaying and laboratory procedures used and whether the technique is considered partial or total.	analysed by SGS Laboratories in Johannesburg by ICP90A Sodium Peroxide Fusion combined ICP-AES and ICP-MS which involves the complete digestion of the sample in molten flux. Fusions are generally more aggressive than acid digestion methods and are suitable for many refractory, difficult-to-dissolve minerals such as chromite, ilmenite, spinel, cassiterite and minerals of the tantalum-tungsten solid solution series. Fusion analyses are presumed to provide a complete chemical analysis and are referred to as a “total” analysis. using a ICP. This technique is considered 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.	Not applicable.
	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.	As sampling undertaken was of a first pass nature, only laboratory introduced standards, blanks and a single repeat were reported during determination of the recent rock chip samples.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No verification exploration work has so far been undertaken.
	The use of twinned holes.	No twin holes were drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The data from previous exploration are currently stored in hardcopy format and are yet to be entered into a digital database.
	Discuss any adjustment to assay data.	No assay data have been adjusted.
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.	Not applicable.
	Specification of the grid system used.	WGS_84 UTM
	Quality and adequacy of topographic control.	No survey has been undertaken. Hand held GPS coordinates have been utilized to locate sampling to date
Data spacing	Data spacing for reporting of	Sampling undertaken to date was of a reconnaissance nature and wide spread along

and distribution	Exploration Results.	specific structures.
	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.	Not applicable.
	Whether sample compositing has been applied.	Not applicable.
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.	Not applicable to the current sampling.
	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.	There is no apparent bias in any sampling to date.
Sample security	The measures taken to ensure sample security.	No records exist of historic sample security procedures. The recent rock chip samples were collected and handed in person by the geologist to the commercial laboratory. Al other samples were sealed into a box and delivered by DHL to the laboratory.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No sampling techniques or data have been independently audited.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Manono Extension licences PR4030 and PR4029 are granted exploration licences. All indigenous title is cleared and there are no other known historical or environmentally sensitive areas.
	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.	See above, no other known impediments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration of relevance was undertaken by: Zairetain Parastatal Mineral company – limited exploration work within the Manono extension licences, Historical drilling of 41 diamond core drill holes and excavation and processing of approximately 90Mm^3 of mineralised material for extraction of tin and tantalum at the nearby Manono mine (located on PE 12202). Alphamin Resources Incorp. Completed a remote sensing interpretation of photogrammetry and alteration utilizing satellite images to target extensions of the main Manono and Kitatolo pegmatites
Geology	Deposit type, geological setting and style of mineralisation.	The Project lays 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 comprises 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 My ago) is assigned to the Katangan cycle and is associated with widespread vein and pegmatite mineralization 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. Bassot and Morio (1989) provide the most comprehensive account of the geology of the Manono deposits from which the following is largely derived. The Manono pegmatites are hosted by a series of quartzitic mica schists presumed to belong to the Lower Kibaran, which are associated with volcanic and intrusive rocks of mainly doleritic composition that are also well represented at Manono. The schists observed in the vicinity of the mine are generally steeply dipping in contrast to the sub-horizontal attitude of the pegmatite intrusions. The pegmatite intrusion is exposed in two areas, Manono in the northeast, and Kitotolo in the southwest. These are separated by a 2.5 km unexposed section centered on Lake Lukushi and the surrounding alluvial plain. It is proposed that this is a faulted section due to the highly weathered nature of the pegamatite to clays derived from mica.

Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	No historic core drilling on the licences. Historic core drilling was completed on the adjacent PE12202 and was selective in nature and served only to test for the existence of mineralization within the southern most areas of the Kitotolo prospect. Maximum depth attained was 180 metres and all holes were vertical. No database of the drill holes is available.
	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.	As above.
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.	Not applicable.
	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.	Not applicable.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
Relationship between mineralisation widths and	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	The core holes were drilled at -90 dip to intercept mineralisation generally dipping -30 to sub-horizontal. Recorded intercept lengths will therefore be greater than true width of mineralisation. Given the widely spaced reconnaissance nature of the drilling the geometry of the mineralisation

intercept lengths		reported is not known and true width is not known.
	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').	As above.
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.	Not applicable.
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.	Due to the nature of the drilling and lack of adequate records and survey control data available, they are to be considered indicative only and not material.
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 further data available.
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).	Further work will include mapping, soil sampling and bedrock sampling for geochemical anomalies to identify prospective target zones and then RC drill testing of the higher priority targets. Diamond drilling will be included in subsequent phases of 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.	The diagrams show the target areas.