### **ASX ANNOUNCEMENT**



# VISCARIA DRILL HOLE VDD 185 INTERSECTS 5.6m at 1.6% COPPER, and VDD 186 INTERSECTS A 35m THICK MINERALISED IRONSTONE

### **Highlights**

- VDD 185 has intersected significant copper mineralisation outside the existing mineral resource area, in a down plunge position at Viscaria D Zone.
- Diamond drill hole VDD 185 has returned assays of:
  - o 10m at 1.2% Cu
  - o Including 5.6m at 1.6% Cu, including 2.1m at 2.3% Cu
- Drill hole VDD 186, also at Viscaria D Zone, has been completed at 563.2m and intersected a 35m thick variably copper mineralised and altered ironstone sequence from 464.5m to 541.5m (assays pending).

**Avalon Minerals Limited** ('Avalon' or 'Company') (ASX: AVI) is pleased to announce the assay results from diamond drill hole VDD 185 at Viscaria D Zone.

Assay results include:

10m at 1.2% Cu from 425.85m,

Including 5.6m at 1.6% Cu, including 2.1m at 2.3% Cu both from 425.85m

Drill hole VDD 185 was completed at 479.7m and was drilled at -55 degrees towards 130 degrees (Figures 1 and 3). The intervals of mineralisation intersected in this drill hole are outside of the area containing the current estimated mineral resources (Figure 2). The results demonstrate that mineralisation is improving in thickness and grade with depth on drilled section (Figure 3).

In long section (Figure 2), the intersection was close to the margin of the interpreted sulphide lens and 300m from VDD 183 (3.5m at 2.2% Cu), but still returned a significant copper intersection and supports our confidence that the D Zone mineral resource estimate will grow.

VDD 186, which has been completed to a depth of 563.2m, was drilled between holes VDD 183 and 185 and has intersected a 35m thick ironstone sequence (downhole thickness) with visible chalcopyrite across multiple intervals (figure 4). This occurs within a broader 77m thick interval of altered rock. Assay results are expected to be received in mid-June.

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Drill holes VDD 183, 185 and 186, are all outside of the area of the current resource estimate, and demonstrate that the D Zone mineralisation continues to be open at depth. Drill hole targeting at D Zone is being directed by key resource estimate growth opportunities and in parallel with in-house mine planning scenarios.

Avalon's Managing Director, Mr Malcolm Norris said, "We are continuing to build on our interpretation of Viscaria D Zone and to bring focus on the interpreted areas of higher grade copper where they extend beyond the current resource estimate, and where those areas have a significant positive effect on our approach to in-house development planning scenarios."

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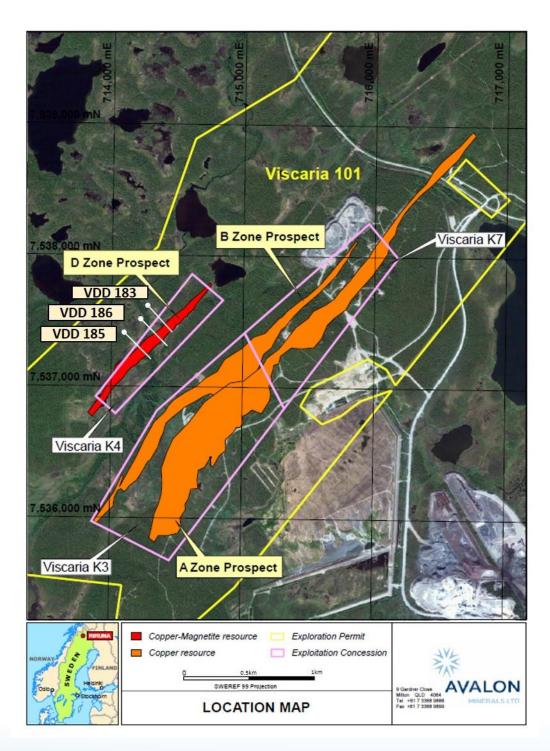


Figure 1 - Location of VDD 183, 185, and VDD 186 at the Viscaria Copper Project, D Zone



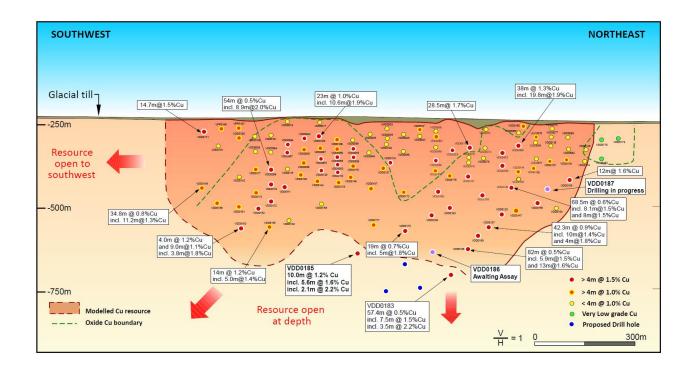


Figure 2 – Location on schematic long section of VDD 183, 185, 186 and 187 at the Viscaria Copper Project, D Zone.



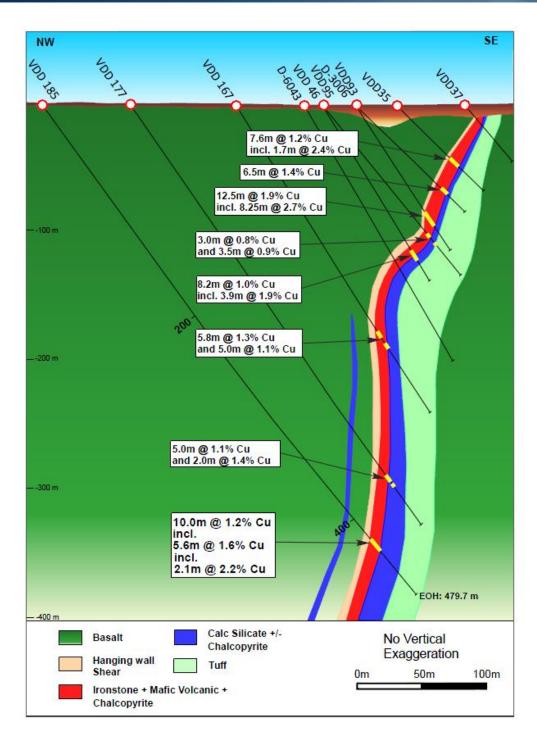


Figure 3: Drill hole cross section containing VDD 185 and previously drilled diamond holes. VDD 185 is collared at 1680120mE and 7537014mN, at an RL of 521m.





Figure 4: VDD 186 drill core at 536.2m showing breccia texture with significant chalcopyrite.

#### **Competent Persons Statement**

The information in this report that relates to exploration results is based upon information reviewed by Mr Malcolm Norris who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Norris is a full-time employee of Avalon Minerals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Norris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information please visit www.avalonminerals.com.au or contact:

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## APPENDIX 1 The following Table and Sections are provided to ensure compliance with the JORC Code (2012 Edition)

**TABLE 1 – Section 1: Sampling Techniques and Data** 

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	The results announced here are from diamond drill core samples. The sampling was carried out using half core, generally at one meter intervals except where adjusted to geological boundaries.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Core recovery was good and core aligned prior to splitting.
	• 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.	• Diamond drilling was used to obtain ~1m samples (see first point above) from which 3-5 kg was sent to the laboratory to be pulverised to produce a 250g sample. Then a 50g portion of this sample was then used for multi-element analysis.
Drilling techniques	• Drill type (eg 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 diamond core was HQ (63.5mm) and NQ (47.6 mm) in size (diameter).
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond core recovery data for this drilling was measured for each drill run and captured in a digital logging software package. The data has been reviewed and core recovery was approximately 100% throughout.
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	• Ground conditions at D Zone are good based on previous drilling, no extra measures were taken to maximise sample recovery.
	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.	No relationship between sample recovery and grade has been established.

Criteria	JORC Code explanation	Commentary	
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<ul> <li>Drill samples were logged for lithology, weathering, structure (diamond core mineralogy, mineralisation, colour and other features. Logging and samplin was carried out according to Avalon's internal protocols and QAQ procedures which comply with industry standards.</li> </ul>	
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Core is photographed both wet and dry.	
	• The total length and percentage of the relevant intersections logged.	All drill holes are logged in full from start to finish of the hole.	
Sub-sampling	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Half core was used to provide the samples that were assayed and reported here. Half core is left in the core trays.	
techniques and sample	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Core samples collected.	
preparation	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>Avalon samples were sent to the ALS Sample Preparation Facility in Pitea, Sweden for sample preparation. The standard ALS sample preparation for drilling samples is: drying the sample, crushing to size fraction 75% &gt;2mm and split the sample to 250g portion by riffle or Boyd rotary splitter. The 250g sample is then pulverised to 85% passing 75 microns and then split into two 50g pulp samples. Then one of the pulp samples was sent to the Vancouver ALS laboratory for base metal analysis.</li> <li>The sample preparation is carried out according to industry standard practices.</li> </ul>	
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul> <li>Avalon used an industry standard QAQC programme involving Certified Reference Materials "standards" (with Cu grades ranging from near cut-off, average resource grades and very high grades) and blank samples, which were introduced in the assay batches.</li> <li>Standards, blanks and duplicates were submitted at a rate of 1 in 20 samples or one standard, blank and duplicate per hole if the hole has less than 20 samples.</li> <li>The check assay results are reported along with the sample assay values in the preliminary and final analysis reports.</li> </ul>	
	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.	<ul> <li>For diamond core, the routine sample procedure is to always take the half/quarter core to the right of the orientation line (looking down hole) or the cut line (in cases where the orientation line was not reliable).</li> <li>Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.</li> </ul>	

Criteria	JORC Code explanation	Commentary		
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation.		
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.	<ul> <li>Avalon used assay method ME-ICP81, which involves sample decomposition by sodium peroxide fusion. They are then analysed by ICP-AES. The lower detection limit for copper using ME-ICP81 is 0.005% and the upper detection limit is 50%.</li> <li>This analysis technique is considered suitable for this style of mineralisation</li> </ul>		
	• 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.	No other measurement tools/instruments were used.		
	<ul> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> <li>The values of the standards range from low to appropriate to monitor performance of value grade of the deposit.</li> <li>The check sampling results are monitore communicated to the laboratory if necessary</li> </ul>			
Verification of	• The verification of significant intersections by either independent or alternative company personnel.	• Photographs of sampled intervals are taken and the Competent Person for exploration results for this announcement has viewed photographs of the core.		
sampling and	The use of twinned holes.	Twin holes have not been drilled in this area.		
assaying	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Avalon sampling data were imported and validated using an Access database package.		
	• Discuss any adjustment to assay data.	Assay data were not 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.	<ul> <li>Surface collar co-ordinates are surveyed by Differential GPS in Swedish coordinate system RT90 gon vast (west) 2.5 by qualified local contract surveyors to a high level of accuracy (1-3cm).</li> <li>It has been standard procedure to use the same contract surveyors to survey collar points since Avalon's involvement, so there is high confidence that all the surface drill holes at A Zone are supported by accurate location data.</li> <li>High quality down-hole dip and azimuth survey data are recorded.</li> </ul>		
	• Specification of the grid system used.	• RT90 Map projection parameters:		
		Parameter Value		
		Reference Ellipsoid Bessel 1841		
		Semi Major Axis 6377397.155 m		
		Inverse Flattening 299.1528128		

Criteria	JORC Code explanation	Commentary		
		Type of Projection	Gauss-Krüger (Transverse Mercator)	
		Central Meridian:	E15°48'29.8" (2.5 gon West of the Stockholm Observatory)	
		Latitude of Origin	0°	
		Scale on Central Meridian	1	
		False Northing	0 m	
		False Easting	1500000 m	
				is situated 4.01° to the east of True North.
	Quality and adequacy of topographic control.	• The topographic surface was taken from LIDAR data (airborne scanning) that was purchased from Lantmäteriet (the Swedish mat cadastral and land registration authority). Data point resolution is 0 metre square and is specified as accurate to 20cm in elevation on distribution surfaces and 60cm in planimetry. The level of accuracy of the L topographic surface was considered adequate for the purposes of refestimation. The LIDAR topographic surface has also been verified many Differential GPS collar survey co-ordinates.		m Lantmäteriet (the Swedish mapping, hority). Data point resolution is 0.5 per ccurate to 20cm in elevation on distinct. The level of accuracy of the LIDAR d adequate for the purposes of resource ic surface has also been verified by the
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<ul> <li>The drilling was from surface and intersected a point approximately 80m fro the nearest drill hole. Data spacing was sufficient to establish interprete continuity between drill holes.</li> <li>Diamond drill sampling was generally taken over 1 meter intervals exce when adjusted to geological boundaries.</li> </ul>		
	• 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.	<ul> <li>Sufficient continuity in both geology and mineralisation has been established to support the classification of the Company's existing Mineral Resource under JORC Code2012.</li> </ul>		
	• Whether sample compositing has been applied.	No sample compo	ositing was done.	
Orientation of data in relation	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.			te for the predominantly high angle of the representative samples.

Criteria	JORC Code explanation	Commentary
to geological structure	• 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 company does not believe that any sample bias had been introduced which could have a material effect on the resource model, particularly given the good correlation of mineralisation between holes.
Sample security	The measures taken to ensure sample security.	<ul> <li>Avalon sampling procedures indicate individual samples were given due attention.</li> <li>ALS is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Avalon's sampling techniques and data have been audited multiple times by independent mining consultants during the process of reporting a JORC Compliant Mineral Resource on the various mineral deposits that make up the Viscaria Copper Project (A Zone, B Zone, D Zone). These audits have always resulted in the conclusion that Avalon's sampling techniques and data are industry standard and suitable for the purposes of reporting a JORC Compliant Mineral Resource.</li> <li>All historical data has been validated and migrated into an access database. Checking was carried out at the data entry stage for interval error and any significant data issues were resolved. Procedures exist to standardise data entry and senior geological staff from Avalon regularly vetted sampling procedures.</li> </ul>

### <u>TABLE 1 – Section 2: Exploration Results</u>

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.	Zone Mineral Resource is also covered by Exploitation Concession Viscaria K		
	• 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.	• Exploration Permit Viscaria nr 101 is valid till the 16/10/2015. Exploitation Concession Viscaria K nr 4 is valid till the 16/01/2037.		

Criteria	JORC Code explanation	Commentary			
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The historic drilling at the D Zone Prospect was completed by Viscaria AB (owned by Outokumpu OY) during the period 1985 till 1997.			
Geology	Deposit type, geological setting and style of mineralisation.	The D Zone deposit is interpreted to be either a volcanic hosted massive sulphide-type (VHMS) ore system or an iron oxide copper gold-type(IOCG) ore system. This deposit has subsequently been strongly attenuated by shearing associated with a lower amphibolite facies metamorphic event. Subsequent to the lower amphibolite facies metamorphism and associated deformation, these rocks have been overprinted by locally constrained shear zones displaying retrograde, greenschist metamorphic mineralogy (chlorite, epidote, actinolite, and talc).			
Drill hole Information	<ul> <li>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:         <ul> <li>a. easting and northing of the drill hole collar</li> <li>b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>c. dip and azimuth of the hole</li> <li>d. down hole length and interception depth</li> <li>e. hole length.</li> </ul> </li> </ul>	Details of the drill holes discussed in this announcement are in the body of the text.			
	• 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.	Information included in announcement.			
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.	The Weighted Averaging method was used to calculate drill hole intersections for copper grade based on the assay results received, and the down hole width of the assayed interval.			
	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 results in the announcement show both aggregated intercepts and specific higher grade intercepts within the broader interval. The aggregated intervals are identified on the basis of the presence of chalcopyrite within altered rock and delivering an aggregated assay of greater than or equal to 0.5% Cu. The specific higher grade intervals are identified based on continuity of mineralisation.			
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal Equivalents have not been applied.			

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and	• If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.	• The orientation of VDD0185 is at a moderate and acceptable angle to the mineralization at the D Zone Prospect. The mineralised interval, from other nearby drilling, is sub-vertical indicating that the estimated true width of the mineralized intersection is approximately 60% of the down hole thickness of the mineralization.
intercept lengths	• 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').	• See above – estimated true widths are approximately 60% of intersected widths.
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.	See Figures for maps and cross-sections showing distribution of drill collars.
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.	• Figure 3 above shows the geological interpretation on cross section of this hole relative to surrounding drill holes.
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.	• Figure 3 above shows the geological interpretation on cross section of this hole relative to surrounding drill holes.
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).	• Exploration for further extensions of the D Zone Mineral Resource is currently in progress.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See figure 2 which shows areas for further drilling at D Zone.