22 JULY 2014

ASX ANNOUNCEMENT

AVALON MINERALS LTD

Viscaria Copper-Iron Project

Copper and Iron Metallurgical Studies Reveal High Grade Concentrates

Highlights

- **Independent review completed of all metallurgical test work;**
- **D Zone copper sulphide mineralisation produces a concentrate with 26% copper and 94% copper recovery;**
- **High quality, magnetite concentrate produced with 70% Iron, low impurity levels from D Zone mineralisation;**
- **A Zone and B Zone mineralisation is amenable to flotation producing a concentrate with 23% copper and 80% copper recovery;**
- **Further metallurgical drilling is planned to commence in Q4 2014 and test work across all zones, on copper and iron metallurgy, is planned for 2015.**

Avalon Minerals Limited ('**Avalon**' or '**Company**') (**ASX: AVI**) is pleased to announce the results of a review of all metallurgical test work completed on the Viscaria Copper-Iron Project to date (Figure 1 and Figure 2).

Avalon commissioned Ausenco Services Pty Ltd ('Ausenco'), who are recognised internationally as a specialist in minerals processing and are independent to Avalon, to conduct this metallurgical test work review during Q2, 2014.

The metallurgical results reviewed were from test programmes completed on the A Zone (copper mineralisation), B Zone (copper mineralisation) and D Zone (copper-magnetite mineralisation) prospects in 2010 to 2011. The test work activities on the mineralisation zones included the following: comminution (competency and hardness); flotation (bulk and cleaner, with and without regrind); magnetic separation (Low Intensity Magnetic Separation and Davis Tube); and selected size-by-size analytical and mineralogy test work. Acid leach test work subsequently completed on oxide copper mineralisation from the D Zone Prospect was announced on the 29 May 2014.

Overall, mineralisation from the A Zone, B Zone and D Zone prospects responded well to conventional mineral processing methods. Flotation test work achieved 94% copper recovery for D Zone at 26% Cu grade and 80% copper recovery for A Zone and B Zone at concentrate grade of 23% Cu. Magnetic separation tests on D Zone float tails for magnetite beneficiation produced a concentrate grade of 70% Fe with low impurity levels.

At this stage, no metallurgical test work has been done on the copper sulphide-magnetite mineralisation from the Discovery Zone Prospect. However, distinct similarities in mineralogy with D Zone (chalcopyrite the dominant copper sulphide) indicate that the Discovery Zone mineralisation may have similar metallurgical characteristics to D Zone for both copper and magnetite products.

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Avalon's Managing Director, Malcolm Norris, said "The results of this metallurgical test work demonstrate that we can produce high quality products of copper sulphide concentrate and magnetite concentrate. These results are from on-going test work and follow-up testing is planned to optimise and further develop processing strategies".

Metallurgical Samples

The samples used for the 2010-2011 metallurgical test work program were collected from 14 diamond drill holes across the A Zone, B Zone and D Zone prospects (Table 1 and Figure 3), totalling about 260 metres of interval length. Head assays for the ore samples subjected to metallurgical testing are shown in Table 1 and summarised in Table 2. The ranges of copper and iron head grades for the metallurgical samples compare well with the copper and iron grades from the resources within the open pit shells examined in the Viscaria Copper-Iron Project Scoping Study announced on the 9 July 2013.

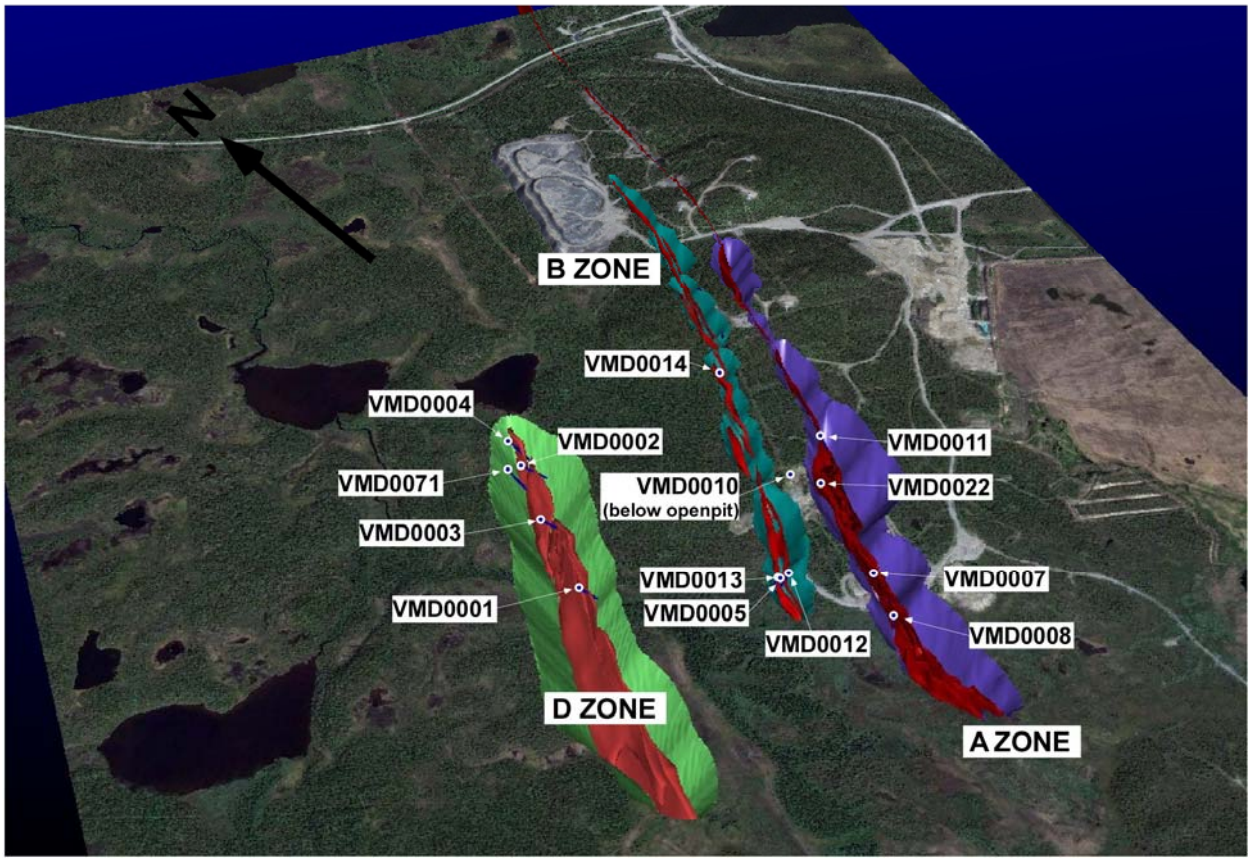
Table 1: Metallurgical test work sample details and head assays.

HOLE ID	Sample from m	Sample to m	Zone	Drill Hole Details						Weathering	Head Assays (%)			
				Easting (m) RT90 gon vast 2.5	Northing (m) RT90 gon vast 2.5	RL (m)	Azimuth (°)	Dip (°)	Hole Length (m)		Cu	Fe	S	SiO_2
VMD0007	1.2	8.0	A Zone	1681022	7536558	520.2	40.2	-90.0	21.00	Fresh	1.79	12.1	2.48	38.2
	15.2	21.0	A Zone							Fresh	0.49	8.76	0.58	52.4
VMD0008	44.7	60.5	A Zone	1680945	7536493	529.2	130.2	-75.0	98.10	Fresh	2.95	19.5	4.43	21.3
	60.5	76.3	A Zone							Fresh	1.46	11.8	2.55	50.4
VMD0011	52.2	56.0	A Zone	1681364	7536845	560.9	130.2	-69.8	58.00	Fresh	0.40	9.4	0.70	49.8
VMD0022	54.6	61.0	A Zone	1681212	7536778	551.0	130.2	-50.0	108.50	Fresh	2.91	16.3	3.66	35.2
	61.0	68.0	A Zone							Fresh	1.26	12.0	1.5	41.8
VMD0005	15.0	38.5	B Zone	1680895	7536740	523.0	130.2	-57.2	41.50	Fresh	1.17	15.8	4.09	35.6
VMD0010	22.3	27.2	B Zone	1681216	7536848	548.6	310.2	-58.1	107.10	Fresh	0.04	7.02	1.11	59.2
	35.5	45.1	B Zone							Fresh	0.00	5.85	0.39	60.9
	48.8	51.1	B Zone							Fresh	0.04	7.26	1.98	54.0
	51.1	53.8	B Zone							Fresh	0.01	5.64	1.35	62.1
	94.6	99.4	B Zone							Fresh	0.10	14.1	1.77	47.1
	98.6	107.1	B Zone							Fresh	0.64	17.2	2.44	41.5
VMD0012	21.2	27.9	B Zone	1680916	7536728	524.9	310.2	-60.1	75.30	Fresh	0.52	15.3	2.66	32.9
VMD0013	15.0	18.0	B Zone	1680898	7536743	523.2	310.2	-60.0	30.00	Fresh	0.76	8.23	3.15	39.2
VMD0014	38.0	50.0	B Zone	1681473	7537174	557.5	130.2	-74.9	59.00	Fresh	1.10	16.6	4.76	35.5
VMD0001	57.4	64	D Zone	1680822	7537333	509.0	130.2	-45.0	85.30	Transition	1.76	38.5	0.33	20.1
VMD0002	40.3	51.1	D Zone	1680970	7537469	509.0	130.2	-45.0	90.50	Fresh	1.04	36.8	1.23	21.5
VMD0003	18.9	46.3	D Zone	1680664	7537139	509.0	130.2	-50.0	68.40	Oxide	1.21	48.0	0.05	18.8
VMD0004	40.68	47.84	D Zone	1681032	7537546	509.2	130.2	-55.6	113.30	Fresh	0.10	32.0	0.41	27.1
	56.80	59.20	D Zone							Fresh	0.06	34.6	0.25	19.4
	60.76	67.30	D Zone							Transition	0.39	30.4	0.22	20.3
VDD0071	107	131	D Zone	1680941	7537494	508.5	127.6	-61.2	180.00	Fresh	0.19	36.5	0.42	24.6
	131	145	D Zone							Fresh	0.79	34.7	0.88	22.8
	145	167	D Zone							Fresh	0.23	21.1	0.48	40.0

Table 2 – Summary of head assays for Viscaria mineralisation tested.

Item	Units	A Zone	B Zone	D Zone		
Ore type (by oxidation)		fresh	fresh	fresh	transition	oxide
Assay (range)	% Cu	0.5-3.0	0.5-1.1	0.8-1.1	1.8	1.2
	% Fe	9-19	5-17	32-37	30-39	48
	% S (total)	2.6-4.4	2.4-4.8	0.4-1.2	0.2-0.3	0.05

Figure 3: Location of metallurgical drill holes in relation to the open pit shells generated during the Viscaria Copper-Iron Project Scoping Study announced 9 July 2013. For scale, the D Zone open pit is approximately 1.1 kilometres long.



Comminution

A summary of the comminution test results is shown in Table 3. The results indicate that D Zone mineralisation is considered moderate to low competency and low hardness. The A and B zone mineralisation is considered moderate to highly competent and hard to very hard. No comminution test data is available for Discovery Zone or the oxide mineralisation from D Zone.

Table 3 – Comminution characteristics for fresh and transition ores at Viscaria
(Bond work index values are averages and tests for ball mill work indices used a 106 micron aperture closing screen).

Comminution test (methodology)		A zone (fresh)	B zone (fresh)	D zone (fresh)	D zone (transition)
Competency (JK Tech)	Axb	no test	35	51	n.a.
Work index-rod (Bond)	kWh/t	21	25	10	11
Work index-ball (Bond)	kWh/t	17	20	8	10
Abrasion index	--	0.15	0.22	0.12	0.06

Flotation

Rougher, cleaner and regrind/cleaner tests were carried out on mineralisation types from the A Zone, B Zone and D Zone prospects. The flotation test work consisted of two general circuits:

- Rougher float kinetic series to investigate bulk recovery characteristics and reagent schemes by ore type (Figure 4);
- Rougher/regrind/cleaner to assess grade/recovery cleaner performance and effect of regrinding (Figure 5).

Figure 4: Rougher float flow sheet.

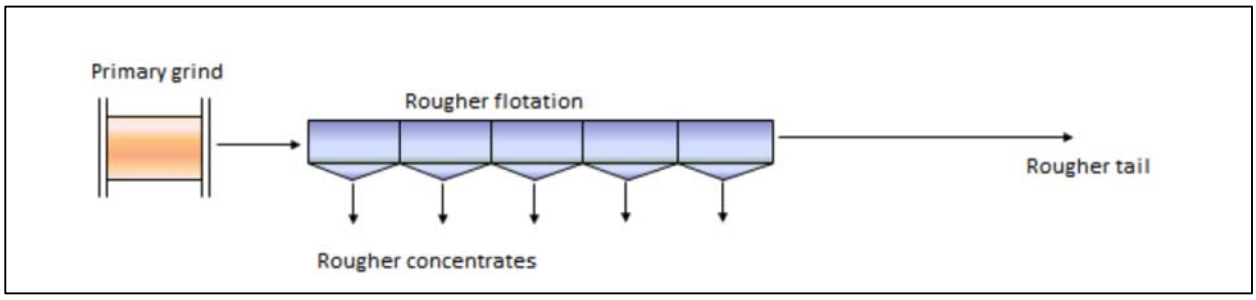
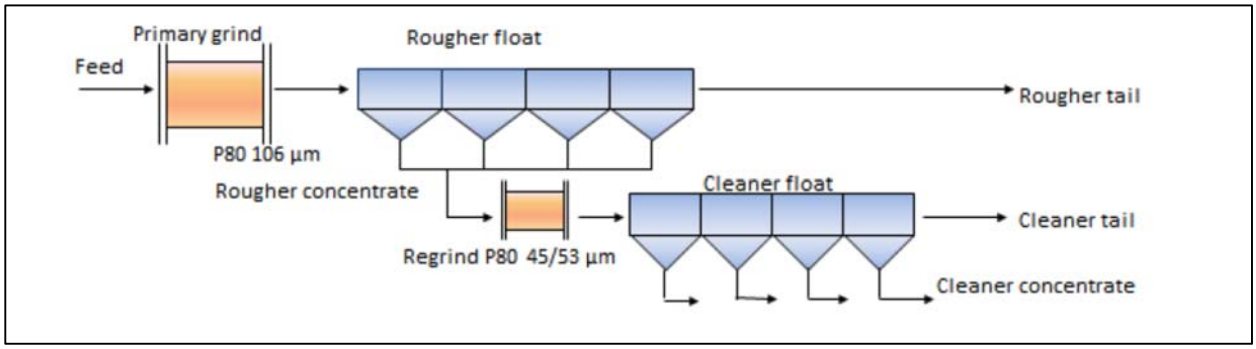


Figure 5: Rougher/regrind/cleaner flow sheet.



The samples outlined in Table 1 were used in flotation test work. Each flotation sample was prepared using intervals of core from one drill hole; that is, no drill holes were combined to prepare combined flotation samples. All samples from A Zone and B Zone were classified as fresh (sulphides), whilst from D Zone, three were fresh, one was transition and one was oxide.

The standard primary grind size used for the tests was 80% passing 106 microns. The rougher concentrate regrind size was 80% passing 53 microns, although a few tests were done at 45 microns with no significant difference in results.

Rougher and cleaner flotation results are summarised in Table 4. Overall, the fresh sulphide mineralisation from A Zone, B Zone and D Zone achieved 80% or greater copper recovery and copper concentrate with grades of between 23-27% Cu. D Zone, which has the most amount of tonnes within the July 2013 Scoping Study open pit shells, was the best performer with 94% copper recovery and a concentrate grade of 26% Cu.

The transition mineralisation from D Zone achieved a moderate recovery of 68% and a copper concentrate with 24% copper grade. Predictably the oxide mineralisation from D Zone achieved a poor recovery of 26%

copper at a concentrate grade of only 14% Cu. This result led Avalon to undertake an investigation into an alternative processing route of acid leaching for this oxide mineralisation (see announcement dated 29 May 2014).

Table 4: Cleaner flotation summary by zone and ore types, without (to cleaner) and with regrinding (before cleaner).

Zone – ore type	Circuit	Feed grade (%Cu)	Rougher recovery (%Cu)	Cleaner recovery (%Cu)	Cleaner conc grade (%Cu)	Overall recovery (%Cu)
A - fresh	to clnr	1.64	94	82	24.5	**76**
	regrind	1.64	95	84	23.4	**80**
B - fresh	to clnr	0.85	97	88	16.8	**85**
	regrind	0.80	94	85	23.4	**80**
D - fresh	to clnr	1.09	97	95	26.7	**92**
	regrind	0.92	97	97	26.2	**94**
D - trans'n	to clnr	1.54	76	89	24.5	68
D - oxide	to clnr	1.22	38	68	14.3	26

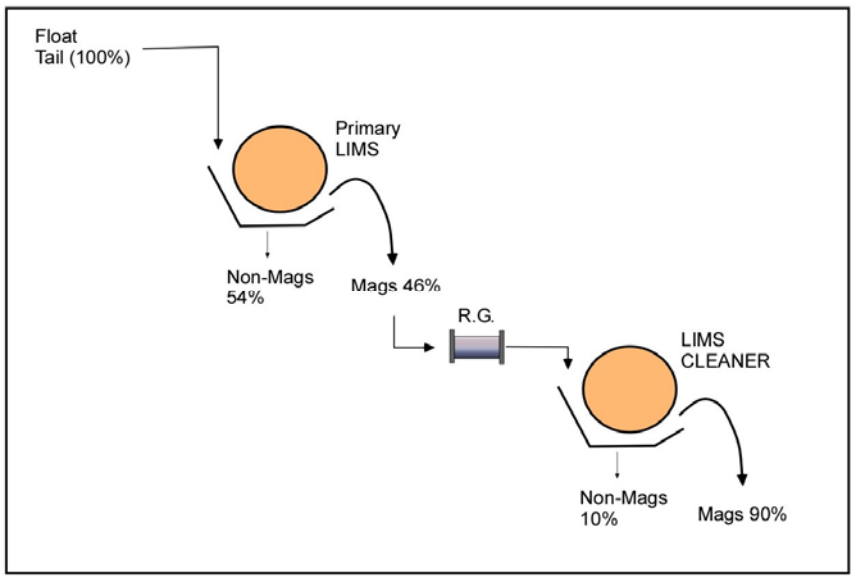
Although no metallurgical test work has been done on the copper sulphide mineralisation from the Discovery Zone Prospect at this stage, its similarities in mineralogy with the D Zone Prospect are expected to show similar metallurgical characteristics and responses to flotation and magnetic separation processes.

Magnetic Separation

D Zone

The D Zone copper float tailing was treated by two stages in sequence of LIMS (Low Intensity Magnetic Separation), with regrind on the first stage LIMS magnetic product to 80% passing 38 microns (Figure 6).

Figure 6: Float tails to two-stage LIMS with regrind on primary MAGS (D Zone Fresh)



The results of this magnetic separation test work are summarised in Table 5. The results indicate that the D Zone sulphide mineralisation (fresh) is highly amenable to magnetic separation with a product of +70% Fe achieved with low copper and sulphur levels (< 0.01%) and total impurities of less than 2.0%. The D Zone transition mineralisation was also amenable to magnetic separation with a product of 70% Fe and total impurities of less than 2.0%. However, the magnetic product had a weakly elevated copper content due to the presence of residual copper minerals in flotation tails (feed to magnetic separation treatment). As the proportion of transition mineralisation in the feed is likely to be relatively low, the copper in transition magnetics is expected to be diluted by the clean, low-copper magnetic product produced from the sulphide mineralisation.

Table 5: Magnetic separation results on flotation tails – with and without regrinding

Zone, ore type	Stream	Mass wt%	% Cu	% S	% Fe	% SiO_2	% Al_2O_3	% P
D Zone - Fresh								
Assays %	Float tail	100	0.03	0.06	32.4	26.1	4.23	0.05
	1° MAGS		0.01	0.02	63	5.7	1.03	0.01
	R/G, 2° MAGS		0.01	0.004	**70.9**	1.0	0.08	0.01
Yield % (stage)	1° LIMS	46	30	24	89	9	10	11
	R/G, 2° LIMS/DTW	90	50	34	99	17	14	45
Yield % (overall)		41.4	15	8.2	88	1.5	1.4	5.0
D Zone - Transition								
Assays %	Float tail	100	0.33	0.02	33.6	20.4	0.86	0.05
	1° MAGS		0.13	0.01	63.9	4.9	0.26	0.02
	R/G, 2° MAGS		0.07	0.01	**69.9**	1.2	0.08	0.01
Yield % (stage)	1° LIMS	48	18	22	91	12	16	18
	R/G, 2° LIMS/DTW	89	40	36	97	19	26	50
Yield % (overall)		42.7	7.2	7.9	88	2.3	4.2	9.0

Historic Metallurgical Performance, based on mining operations Viscaria A Zone

A significant part of the A Zone Prospect was previously mined by Viscaria AB (owned by Outokumpu OY) from 1982 to 1997. The operations consisted of underground mining utilising sub-level stoping methods and the ore was processed at surface by conventional crushing, grinding (autogenous) and froth flotation processes, which produced smelter-grade copper concentrates for sale. A total of 12.5 million tonnes of ore at an average diluted grade of 2.3% Cu was treated during this time. Concentrator maximum annual throughput was 1.3 million tonnes per year. The following information has been taken from historical records:

- Ore feed grade (average): 2.3% Cu, 0.28% Zn, 0.25 g/t Au, 8.5 g/t Ag, 0.001% As;

- Concentrate grade (typical): 25% Cu, 0.5 g/t Au, 60 g/t Ag, 2.3% Zn, 0.02% As, 0.001% Bi, 0.01% Sb, 13% SiO2, 1 g/t Hg, 0.04% Ni;
- Concentrate recovery: 89% (at average feed grade);
- Tail grade: 0.25% Cu, 0.27%Zn, 19% Fe, 0.2 g/t Au, 2 g/t Ag;
- Grinding requirements: ball mill work index of 24 kWh/t;
- Reagent usage:
  - Lime (hydrated) 300 g/tonne
  - Frother (MIBC) 38 g/tonne
  - Depressant (Dextrin) 70 g/tonne
  - Collector (IPX) 26 g/tonne

The concentrate was classed as very clean and easily blended at the smelter.

Follow-up work to be completed

The Ausenco review has recommended a number of follow-up tests for the next phase of metallurgical studies. These are expected to be undertaken in 2015, based on samples collected during the 2014-15 winter drilling program. Tests will include, but are not limited to -

Comminution

Spatially-based composite samples from additional drill core from A, B, D and Discovery zones will be selected for further competency and hardness tests.

Flotation

Further investigative and diagnostic flotation test work be carried out to:

- Optimise primary grind size by zone for fresh ores;
- Assess the copper grade/recovery performance in Discovery Zone;
- Complete floatation test work on more widely-spaced D Zone mineralisation samples to ensure representivity;
- Improve copper grade/recovery performance in A and B Zone material;
- Assess impact on downstream magnetic separation performance and final magnetic product quality with on-going flotation development.

Magnetic Separation

Further magnetic separation test work is expected to be carried out to assess the magnetic separation performance for the Discovery Zone mineralisation and for rougher tailings at different primary grind sizes.

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

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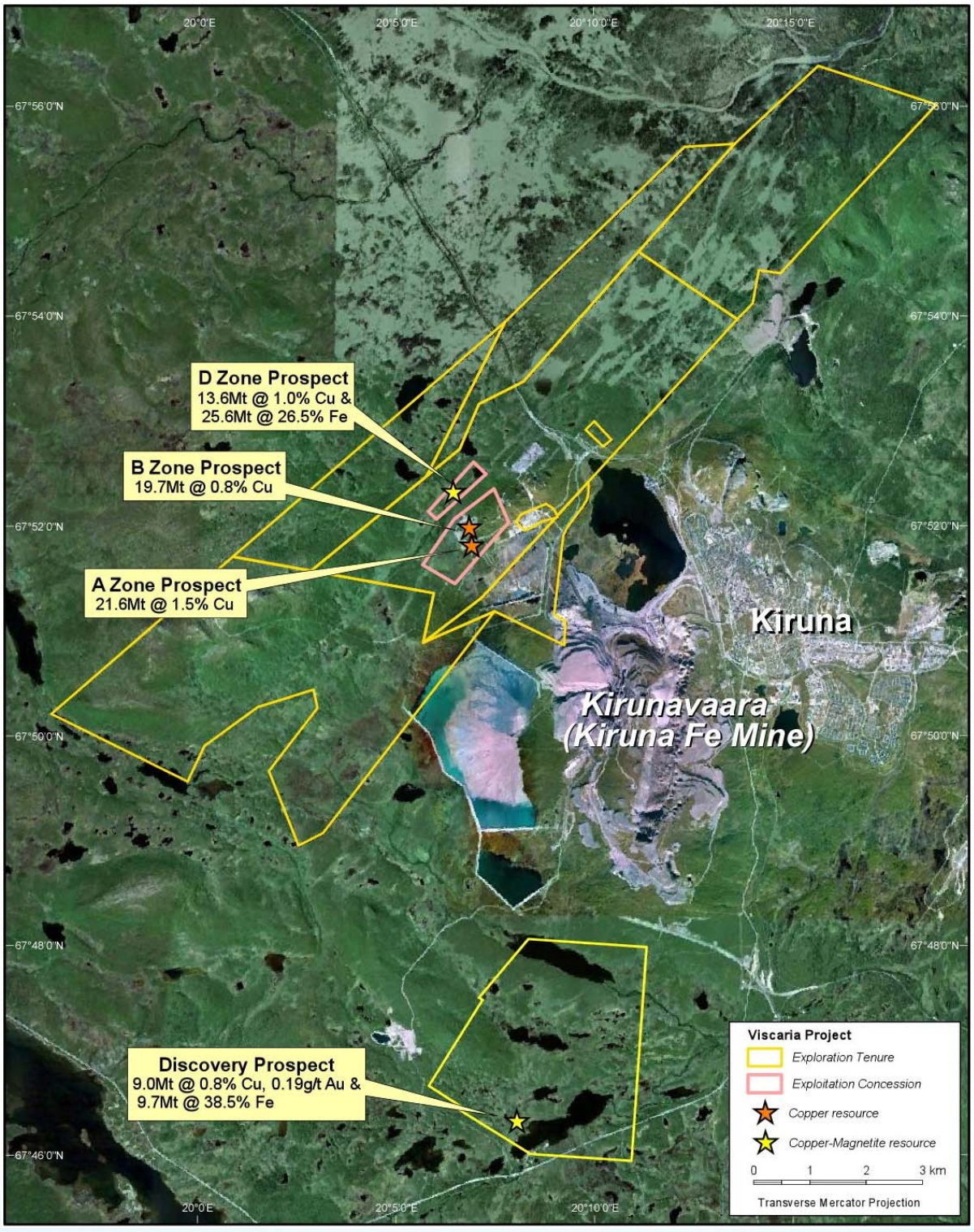
Competent Persons Statement

The information in this report that relates to metallurgical results is based upon information reviewed by Edward McLean who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr McLean is a full-time employee of Ausenco Services Pty 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 McLean consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to exploration results is based upon information reviewed by Dr Quinton Hills who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Hills 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". Dr Hills consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Figure 1 – Project Location

Figure 2 – Location of Mineral Resources of the Viscaria Copper-Iron Project.



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 mineralisation samples used for metallurgical test work described in this announcement were obtained from diamond drilling core. The diamond drilling predominantly provided high quality sample, as evidence by the good core recoveries.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Metallurgical drill core samples were logged for lithology, weathering, structure, mineralogy, mineralisation, colour and other features. To ensure representivity the entire intersection of mineralisation was taken for metallurgical test work.
	• *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.*	• The diamond drill core was HQ in size (63.5mm core size) and sampled through the entire mineralised zone. Individual one metre samples were taken from the mineralised intersection, then sealed in air tight plastic bags and sent to ALS Metallurgy's laboratory in Perth, as per instructions from the laboratory.
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.).*	• Diamond Drilling using HQ sized equipment.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Diamond core recovery data for the drilling was measured for each drill run and captured in a digital logging software package. The core recoveries were very good in mineralised zones with the vast majority of the drilling having over 90% core recovery. The only exception to this was the oxide mineralised intersection from drill hole VMD003, which had poor core recovery of approximately 50% on average. Therefore, further drilling of this oxide mineralisation will need to be completed with a Triple Tube System.

Criteria	JORC Code explanation	Commentary
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• The only measures used to maximise sample recovery were the use of drilling muds.
	• *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.*	• With the history of good sample recoveries, there is no known sample bias or potential for sample bias.
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.*	• Metallurgical drill samples were logged for lithology, weathering, structure, mineralogy, mineralisation, colour and other features. Logging and sampling was carried out according to Avalon's internal protocols and procedures which comply with industry standards, and are overseen by their geological managers and/or Competent Persons (CP).
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• Drill samples are logged for lithology, weathering, structure, mineralogy, mineralisation, colour and other features and is generally qualitative in nature. However, observed mineralisation is logged quantitatively and is routinely compared against assay results as a quality control check. 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 techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Whole core taken.
	• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	• Not applicable.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Sample preparation was carried out as per instructions from the metallurgical laboratory. This involved individual one metre samples taken from the mineralised intersection, then sealed in air tight plastic bags and sent to ALS Metallurgy's laboratory in Perth.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• No Sub-sampling undertaken.
	• *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.*	• Whole HQ core taken for metallurgical test work. HQ core was used in order to get enough sample to ensure representivity of the mineralisation in that area of the mineral resource.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Sample sizes were considered to be appropriate and correctly represent the style and type of mineralisation.

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.*	• The metallurgical test work was completed by a reputable laboratory, ALS Metallurgy in Perth and reviewed by consultant from Ausenco Services Pty Ltd ('Ausenco'), recognised internationally as a specialist in minerals processing and independent to Avalon. The Competent Person for metallurgical results for this announcement has used this laboratory successfully on many occasions. All the metallurgical test work undertaken and reported in this announcement are conventional mineral processing methods. All the results from the different tests completed all corresponded within expectations when compared.
	• *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.
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Head assays were cross-checked against calculated head assays in order to establish accuracy of results.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• Photographs of sampled interval taken and the Competent Person for exploration results for this announcement has viewed remaining core in trays.
	• *The use of twinned holes.*	• None of the metallurgical drill holes were twins.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Avalon core recovery, logging, sampling and assay data were imported and validated using an Access database package.
	• *Discuss any adjustment to assay data.*	• No adjustments or calibrations were made to 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.*	• The majority of surface collar co-ordinates were surveyed by Differential GPS in Swedish co-ordinate system RT90 gon väst (west) 2.5 by qualified local contract surveyors to a high level of accuracy (1-3cm). • 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 are supported by accurate location data. • High quality down-hole dip and azimuth survey data support the Avalon diamond drill holes. The surveys were collected using gyro survey tools.
	• *Specification of the grid system used.*	• The majority of surface collar co-ordinates were surveyed by Differential GPS in Swedish co-ordinate system RT90 gon väst (west) 2.5.

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	• The topographic surface was taken from LIDAR data (airborne laser scanning) that was purchased from Lantmäteriet (the Swedish mapping, cadastral and land registration authority). Data point resolution is 0.5 per metre square and is specified as accurate to 20cm in elevation on distinct surfaces and 60cm in planimetry. The level of accuracy of the LIDAR topographic surface was considered adequate for the purposes of resource estimation. The LIDAR topographic surface has also been verified by the many Differential GPS collar survey co-ordinates.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• The drill holes that provided the metallurgical test work samples are relatively evenly spread on 200-250 metre spacings throughout the A Zone, B Zone and D Zone prospects. The only exception to this is in the south western half of the D Zone prospect, where no metallurgical samples were taken. Therefore, further metallurgical test work programmes will need to include samples from this area to ensure representivity of all mineralisation within the D Zone prospect.
	• *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.*	• Sufficient continuity in both geology and mineralisation has been established to support the classification of the Company's existing Reported Mineral Resources to be classified and reported under JORC Code 2012. The knowledge of the continuity in both geology and mineralisation has been used to select metallurgical samples that are interpreted to be representative of the mineralisation from each of the three prospects.
	• *Whether sample compositing has been applied.*	• For metallurgical sampling the entire mineralised intersection was composited into one sample.
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.*	• Drilling orientations were appropriate for the high angle mineralised intersections and sampling was appropriate and representative. Also, due to the very large number of drill holes and the very short data spacing throughout the A Zone, B Zone and D Zone prospects, it is interpreted that the mineralisation width was extremely well determined and of a high level of confidence.
	• *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 has been introduced which could have a material effect on the resource model, particularly given the strong correlation of mineralisation between holes.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Avalon sampling procedures indicate individual samples were given due attention. • ALS is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• For the A Zone, B Zone and D Zone prospects, the sampling techniques and data for the metallurgical samples used have been reviewed by the Competent Person for exploration results for this announcement and have been found to be in line with industry best practice. No issues were found.

TABLE 1 – Section 2: Exploration Results

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 A Zone, B Zone and D Zone prospects are covered by Exploration Permit named Viscaria nr 101, which is 100% owned by Avalon Minerals Limited.. • The A Zone and B Zone prospects are also covered by an Exploitation Concession named Viscaria K nr 3, which is 100% owned by Avalon Minerals Limited; and an Exploitation Concession application Viscaria K nr 7, which was submitted by Avalon Minerals Limited. • The D Zone Prospect is also covered by an Exploitation Concession named Viscaria K nr 4, which is 100% owned by Avalon Minerals Limited. • The Exploration Permit named Viscaria nr 101 that contains the A Zone, B Zone and D Zone prospects is subject to a 1% Net Smelter Return royalty to Phelps Dodge Exploration Sweden AB.
	• *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.*	• Tenure for the southern half of the A Zone and B Zone prospects is valid until 16/01/2037. • Tenure for the northern half of the A Zone and B Zone prospects is valid until 16/10/2015, however if Viscaria K nr 7 is granted, which will be determined within the next couple of months, this area will remain secure until approximately 2040. • Tenure for the D Zone Prospect is valid until 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 A Zone, B Zone and D Zone prospects was completed by LKAB prospecting until 1985 and then by Viscaria AB (owned by Outokumpu OY) from 1985 till 1997. This work appears to be of good standard for the time and resulted in the discovery of each of these prospects.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The A Zone, B Zone and D Zone deposits are interpreted to be a VHMS-type 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	• *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:* *a. easting and northing of the drill hole collar* *b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *c. dip and azimuth of the hole* *d. down hole length and interception depth* *e. hole length.*	• All drillhole information has been detailed in the body of this announcement.
	• *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.*	• All drillhole information has been detailed in the body of this 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.*	• Metallurgical samples were predominating constrained to the same copper and iron grade cut-offs as the mineral resource.
	• *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 entire mineralised intersection was used for metallurgical test work.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No assumptions are included in this report because metal equivalents have not been used. •

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.*	• The metallurgical drill holes were drilled at various angles but was predominately at a high angle to the mineralisation.
	• *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').*	• Not Applicable as individual exploration results have not been reported here.
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 Figure 3 for map showing distribution of drill collars relative to mineral resource wireframes.
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.*	• The ranges of copper and iron head grades for the metallurgical samples compare well with the copper and iron grades from the mineral resources defined on the Viscaria Copper-Iron Project, as well as the portions of those mineral resources within the open pit shells examined in the Viscaria Copper-Iron Project Scoping Study announced on the 9 July 2013.
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 meaningful and material exploration data is known other than what has been reported previously.
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).*	• The further metallurgical test work proposed for the Viscaria Copper-Iron Project is outlined in the body of this announcement.
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Not included as this report is not related to exploration/resource extension activities.