31 July 2013

# **ASX ANNOUNCEMENT**

# AVALON MINERALS LTD

## AVALON MINERALS LTD JUNE 2013 QUARTERLY REPORT

#### HIGHLIGHTS

#### Viscaria Copper-Iron Project, Sweden (Avalon - 100%)

- Scoping Study results indicate that the potential NPV<sub>10% REAL</sub> (pre-tax) of an Open Pit Mining Scenario on the Viscaria Project is now US\$373 million dollars (using US\$3.00/lb copper price, US\$150/t iron ore pellet price), greatly exceeding the target project NPV of US\$300M announced following the Scoping Study of October 2012;
- Increased Project NPV is due to recently announced upgrade of the D Zone Mineral Resource (see ASX Announcement 26 June 2013), Discovery Zone Mineral Resource and revised mining cost assumptions;
- Pre-production CAPEX is estimated at US\$180M, with a total Life-of-Mine CAPEX of US\$231M;
- Internal Rate of Return (IRR) = 56.6% and the C1 Cash Cost, net of iron credits, for the Open Pit Mining Scenario is US\$0.49/Ib copper;
- At US\$3.25/lb copper price, the Open Pit Mining Scenario has a NPV<sub>10% REAL</sub> (pre-tax) of US\$423M;
- At US\$2.75/lb copper price, the Open Pit Mining Scenario has a NPV<sub>10% REAL</sub> (pre-tax) of US\$323M;
- Scoping Study results indicate that the Open Pit Mining Scenario produces between 15,000 to 22,000t of copper and 625kt to 1.25Mt of magnetite concentrate per annum over a 10.3 year mine life;
- The portion of the D Zone Mineral Resource that could be mined by underground methods could potentially add US\$34M net cash margin.
- Overall Mineral Resource at D Zone prospect increased to 30.0 million tonnes from 15.5 million tonnes;
- Copper Metal increased at D Zone by 183% to 136,000t, with the copper Mineral Resource tonnage increased by 152% to 13.6 million tonnes @ 1.00% Cu above a 0.4% copper cut-off grade, an 11% increase in copper grade;
- Estimated recoverable iron at D Zone increased by 78% to 5.7 million tonnes and the iron Mineral Resource increased by 73% to 25.6 million tonnes @ 26.4% Fe at a 15% Mass Recovery cut-off;

## ASX: AVI

#### **REGISTERED OFFICE**

Avalon Minerals Ltd ABN 68 123 184 412 65 Park Road Milton Qld 4064 Australia P + 61 7 3368 9888 F + 61 7 3368 9899 info@avalonminerals.com.au www.avalonminerals.com.au

#### CONTACTS

Jeremy Read Avalon Minerals P +61 7 3368 9888

James Harris Professional Public Relations P +61 8 9388 0944

#### MANAGEMENT TEAM

Managing Director Jeremy Read

Business Manager Ian Wallace

Exploration Manager Dr Quinton Hills

Country Manager Louise Lindskog

Chief Financial Officer Linda Cochrane

Company Secretary Roslynn Shand



- Final assay results from 2012-2013 winter drill program at D Zone were received during the quarter and best intersections include:
  - VDD0166: 13.0m @ 2.1% CuEq\* and 5.9m @ 2.1% CuEq\*, within a larger zone of 82.0m @ 0.9% CuEq\*;
  - VDD0169: 6.1m @ 2.3% CuEq\* and 7.0m @ 1.7% CuEq\*, within a larger zone of 77.1m @ 0.8% CuEq\*;
  - VDD0163: 3.8m @ 2.3% CuEq\* and 9.0m @ 1.5% CuEq\*, within a larger zone of 55.0m @ 1.1% CuEq\*;
  - VDD0167: 5.8m @ 1.8% CuEq\* and 5.0m @ 1.5% CuEq\*, within a larger zone of 15.8m @ 1.2% CuEq\*;
  - > VDD0171: 14.7m @ 1.7% CuEq\*, within a larger zone of 39.0m @ 1.1% CuEq\*;
  - VDD0175: 8.0m @ 1.7% CuEq\*, within a larger zone of 19.0m @ 1.1% CuEq\*;
  - > VDD0177: 5.0m @ 1.6% CuEq\*, within a larger zone of 15.0m @ 1.1% CuEq\*;
  - VDD0178: 4.55m @ 1.6% CuEq\*, within a larger zone of 8.35m @ 1.1% CuEq\*;
- Drilling at the Tjärro Prospect, located approximately 20kms to the northeast of the Viscaria Project, has located a trend of copper mineralisation over at least 200m of strike, with the mineralisation open both to the north and the south;
- Drill hole TD005 at Tjärro intersected 2.85m @ 0.7% Cu and 0.5g/t Au, within a larger mineralisation zone of 11.45m @ 0.4% Cu and 0.2g/t Au;
- TD005 is approximately 200m along strike from historic drilling that intersected:
  - > 15m of 1.3% Cu from 80m, including 8m @ 1.7% Cu;
    - 17m @ 1% Cu, including 7m @ 1.4% Cu;
    - 34.45m @ 0.6% Cu & 0.4g/t Au, including 3.6m @ 1.6% Cu & 1.2g/t Au;
- This is the first exploration drilling outside the Viscaria area that Avalon has conducted to date on its 720km<sup>2</sup> of regional tenements in Northern Sweden.

#### <u>Corporate</u>

- Completed institutional placements to raise A\$2.4M (before costs) to progress work at Avalon's flagship Viscaria Copper-Iron Project in northern Sweden;
- Proceeds from the placements will be used by the Company to:
  - > Complete studies on the Viscaria Copper Project;
  - Pursue acquisition activities; and
  - Provide working capital;
- Strategic Review Process commenced to determine how best to fund the future development of the Viscaria Copper Project and maximise shareholder value.
- Cash position of the Company at the end of the quarter was \$1.18M.



Avalon Minerals Limited ('Avalon' or 'Company') (ASX: AVI) continued to progress the Viscaria Copper Project (**Viscaria Project**) in northern Sweden during the quarter and into July 2013, with the release of an updated Scoping Study for the Base Case Open Pit mining scenario, a revised Mineral Resource for D Zone, assay results received from prospects targeted during the recently completed Viscaria drill program and regional exploration drilling (Figure 1).





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#### Scoping Study on Viscaria Copper Project Open Pit Mining Scenario

On 9 July 2013, the Company announced the results of a Scoping Study completed on the Viscaria Project by Xstract Mining Consultants. The Scoping Study Open Pit Mining Scenario assessed the viability and potential value of the currently defined Mineral Resources on the Viscaria Copper Project, with the addition of the Discovery Zone Mineral Resource. The Viscaria Copper Project is based upon the updated Mineral Resources announced to the ASX on 26 June 2013 (see Table 1). The Discovery Zone Prospect has a current JORC Inferred Mineral Resource of 10.9Mt @ 0.31% Cu, 38.7% Fe and 0.08g/t Au, reported above a 20% Fe cut-off. These Mineral Resources were subjected to open pit optimisations using the parameters and revenue assumptions outlined in Table 2. Using these parameters, a series of optimised open pit shells were generated along the near-surface trends of the A Zone, B Zone and D Zone Mineral Resources at Viscaria. Figures 2 and Table 3 show the production profile developed for the optimised open pit mining scenario.

	Reso	urce Name	Clas	ssification	Tonnes (t)	Cu Grade (%)	Cu Metal (t)	
			М	leasured	14,439,000	1.66	240,000	
		· - ·	Ir	ndicated	4,690,000	1.22	57,000	
		A Zone*	li	nferred	2,480,000	1.03	26,000	
			S	ubtotal	21,609,000	1.49	323,000	
	B Zone*		М	leasured	123,000	1.33	2,000	2,000 30,000
			Ir	ndicated	4,118,000	0.72	30,000	
			l.	nferred	15,410,000 0.77 <b>19,651,000 0.76</b>	0.77	118,000	
			S	ubtotal		0.76	150,000	
			Inc	licated**	5,100,000	1.07	55,000	
		D Zone Cu Resource	In	ferred**	8,500,000	0.96	81,000	
		cunceource	S	ubtotal	13,600,000	1.00	136,000	
		Overall Cu		Total	54,860,000	1.11	609,000	
esource	Name	Classification	Tonnes (Mt)	Fe Grade (%)	Mass Recover (%)	y Contained Iron (Mt)		
D Zon	ie	Indicated***	11.7	27.5	33.4	3.2	2.	7
Fe Resou	urce	Inferred***	13.9	25.7	31.0	3.6	3.0	0
Overall	Fe	Total	25.6	26.4	32.1	6.8	5.	7

Table 1: Currently Defined Mineral Resources on the Viscaria Project.

\* 2011 Mineral Resources for A Zone and B Zone are reported above a cut-off grade of 0.4% Cu.

\*\* 2013 Copper Mineral Resource for D Zone above a cut-off grade of 0.4% Cu.

\*\*\* 2013 Iron Mineral Resource for D Zone above a cut-off grade of 15% Mass Recovery.

Note that the total D Zone Indicated and Inferred Mineral Resource reported for the Copper and Iron above 15% Mass Recovery (Table 1) are not mutually exclusive; the Mineral Resource for Iron above 15% Mass Recovery excludes 4.4 million tonnes at 0.89% Cu above a cut-off grade of 0.4% Cu.

Contained iron is tonnes x Fe%, which may include iron content in silicates that could not be recovered. Estimated recoverable iron is based on Davis Tube Recovery test work at a 75 micron grind size. Estimated contained iron is tonnes x mass recovery % x Fe % in concentrate (69% Fe).



Parameter	Unit	Value	Comments
Overall pit slope angle	Degrees	60	
Copper Price	US\$/t	US\$6,614	US\$3.00/lb Cu
Fe Price	US\$/t	US\$150	Iron ore pellet price
Mining Cost (ore)	US\$/t	US\$4.00	
Mining Cost (waste)	US\$/t	US\$3.00	
Mining Recovery	%	95%	
Mining Dilution	%	5%	
Metallurgical Recovery	% Cu	85%	
Wetanurgical Necovery	% Fe	76%	
Concentrate Grade	% Cu	25%	
Concentrate Grade	% Fe	69%	
Processing Costs	US\$/t ore	US\$9.39	
Admin Costs	US\$/t ore	US\$3.08	
Payable Copper	% Cu contained	98%	
Payable Magnetite	% Fe contained	98%	
Copper Conc. Treatment charge	c/lb Cu	90	
Copper Conc. Refining charge	c/lb Cu	9	
Magnetite Conc. Treatment charge	US\$/dmt	28	

Table 2: Pit Optimisation Parameters and Revenue Assumptions



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Figure 2.	Open F	Dit N	/lining	Scenario	Production	Profile

Year	Tonnes Mined (kt)	% Cu	% Fe	Copper Conc Produced (kDMT)	Contained Copper (kt)	Magnetite Conc Produced (kDMT)	Contained Iron (kt)
FY2014							
FY2015	1750	0.50	23.5	29.5	7.4	488	339
FY2016	3500	0.50	23.5	59.0	14.7	976	678
FY2017	3500	0.50	23.5	59.0	14.7	976	678
FY2018	3500	0.52	29.0	62.3	15.6	1246	866
FY2019	3500	0.52	29.0	62.3	15.6	1246	866
FY2020	3500	0.54	28.5	64.1	16.0	1221	849
FY2021	3500	0.70	23.0	83.5	20.9	950	660
FY2022	3500	0.74	17.0	87.6	21.9	661	459
FY2023	3465	0.74	16.4	87.4	21.8	625	434
FY2024	2833	0.78	12.5	75.6	18.9	385	267
FY2025	1104	0.89		33.4	8.4		
	33,652	0.61	22.0	704	176	8,772	6,097

Table 3: Open Pit Mining Scenario Production Summary



A summary of the economic assessment of the Open Pit Mining Scenario is given in Table 4.

Table 4: Summary of the Economic Assessment of the Open Pit Mining Scenario

Open Pit Mining Scenario	Viscaria Project Mineral Resources + Discovery Zone Mineral Resource				
Tonnage and grade	33.7 Mt @ 0.61% Cu and 22% Fe				
Optimum Mining Rate	3.5 Mtpa				
Mine Life	10.3 years				
Pre-Production Capex	US\$180 M	Includes US\$20.6M pre-strip			
Life-of-Mine Capex	US\$231 M	Excludes closure costs			
NPV <sub>10% REAL</sub> (pre-tax)	US\$373 M	US\$3.00/lb Cu US\$150/t iron ore pellets			

#### **Price Sensitivity**

In order to understand the sensitivity of the Project NPV to changes in the prices of copper and iron, an economic analysis was completed using varied price scenarios, as outlined in Table 5.

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Table 5: Price Sensitivity (NPV 10% real)						
Project NPV <sub>10% real</sub> (Pre-Tax)		Fe Price (for 69% Fe iron ore pellets)				
		US\$130/t	US\$150/t	US\$170/t		
	US\$3.50/lb Cu	\$371	\$474	\$578		
Ou Dries	US\$3.25/lb Cu	\$321	\$423	\$527		
Cu Price	US\$3.00/lb Cu	\$270	\$373	\$477		
	US\$2.75/lb Cu	\$219	\$323	\$426		

#### **Cost and Revenue Assumptions**

The capital costs used in the Open Pit Mining Scenario have been summarised in Table 6, with the operating costs assumptions in Table 7. The C1 copper cash operating costs, net of iron credits, for the Open Pit Mining Scenario is predicted to be \$0.49/lb Cu, which is in the lower quartile of copper producers. The breakdown of the project value minus the various capital and operating cost assumptions is shown in Figure 3.





Item	Open Pit Mining Scenario (US\$M)	Comments
Process Plant	151.7	Scalable on production capacity
Pit D site establishment	2.5	Includes provision of site services and access roads
Pre-Strip	20.6	
Tailings Storage Facility	5.0	
Pre-Production Total	180	
Pit A site establishment	1.7	Includes provision of site services and access roads
Pit B site establishment	1.5	Includes provision of site services and access roads
Discovery Zone site establishment	15.0	Includes provision of site services, access roads, surface water berm
Replacement Capital	33.0	
Closure Costs	-	Not Included
Life of Mine Total	231	

Table 6: Capital Cost assumptions

Table 7: Operating Cost assumptions

Parameter	Unit	Value	Comments			
Mining Cost (ore)	US\$/t	\$4.00				
Mining Cost (waste)	US\$/t	\$3.00				
Processing Costs	US\$/t ore	\$9.39	Variable – assumes 40% fixed costs and 9.39/t @ 3.5Mtpa			
Admin Costs	US\$/t ore	\$3.08				
Copper Conc. Transport	US\$/DMT conc	15.75	Assumes local smelter			
Magnetite Conc. Transport	US\$/DMT conc	1.50	Assumes slurry pipe to LKAB			





Figure 3: Project Value Breakdown (at US\$3/lb Cu, US\$150/t iron ore pellets)

#### **Comparison with previous Open Pit Mining Scenario result**

The economic summary of the previous Open Pit Mining Scenario, as announced in March 2013, as displayed in Table 8, was only based on open pit mining the D Zone and A Zone Mineral Resources. In contrast, the current Open Pit Mining Scenario economic summary has a significantly increased resource base due to the inclusion of the upgraded D Zone Mineral Resource (announced 26 June 2013); the addition of the B Zone Mineral Resource; and the addition of the Discovery Zone Mineral Resource (announced 6 May 2013). This has allowed for the Optimum Mining Rate to be expanded to 3.5Mtpa, the mine life to be extended to 10.3 years and the NPV to be increased by US\$276 million dollars to US\$373 million dollars.

Table 8: Summary of the economic assessment	of the March	2013 open pit	mining scenario
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March 2013 Open Pit Mining Scenario	D Zone Open Pit and A Zone Ope	n Pit-A
Tonnage and grade	13.3.0 Mt @ 0.54% Cu 22.2% Fe	
Optimum Mining Rate	2.1 Mtpa	
Mine Life	7 years	
Pre-Production Capex	US\$138.7 M	Includes US\$17.9M pre-strip
Life-of-Mine Capex	US\$152.2 M	Excludes closure costs
NPV <sub>10% REAL</sub>	US\$97 M	US\$3.25/lb Cu US\$150/t iron ore pellets

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#### **Review of Costs and Revenue Assumptions**

As a part of the Scoping Study the costs and revenue assumptions used in previous economic assessments were also reviewed. One of the most significant findings of this review was that the open pit mining costs used previously were too high in comparison to several operating mines in Scandinavia. The review recommended that the open pit mining costs should be lowered to US\$4.00/t for ore and US\$3.00/t for waste, in comparison to US\$4.55/t for ore and waste that was previously used.

Other costs and revenue assumptions from previous economic assessments that were adjusted are shown in Table 9. These include: lowering the copper price to US\$3.00/lb Cu from US\$3.25/lb Cu, to represent a wider view of copper price forecasts; decreasing the overall Metallurgical Recovery of the copper to 85% from 90% due to presence of copper oxides in some areas; and increasing the copper treatment (TC) and refining (RC) charges to reflect increases in these costs since the 2010 Pre-Feasibility Study.

Table 9: Summary cost and revenue assumptions adjusted in the July 2013 open pit mining scenario, in comparison

Parameter	Unit	March 2013 Scoping Study	July 2013 Scoping Study	Comments
Copper Price	USD/t	\$7,165	\$6,614	Decreased to US\$3.00/Ib Cu due lower copper price forecasts
Open Pit Mining Cost (ore)	USD/t	\$4.55	\$4.00	Decreased due to review of Scandinavia mining costs
Open Pit Mining Cost (waste)	USD/t	\$4.55	\$3.00	Decreased due to review of Scandinavia mining costs
Metallurgical Recovery	% Cu	90%	85%	Reduced due to uncertainty around processing some areas of oxide copper
Copper Conc. Treatment Charge	USD/dmt	\$45	\$90	Increased to reflect 2013 TC prices
Copper Conc. Refining Charge	c/lb Cu	4.5	9	Increased to reflect 2013 RC prices
Royalty Viscaria	%	0.75	1.00	Increased due to Discovery Zone royalty

### to previous open pit mining scenarios.

#### **Potential Value Opportunities and Risks**

#### Mine design

All of the scenarios have included some Inferred Mineral Resource estimates. Ongoing exploration drilling and subsequent re-estimation may result in changes to the economically minable portions of the resource. This may result in an increase or decrease in the tonnage and/or grade estimates.

When undertaking final designs from an optimised pit shell, practical mining considerations may require additional waste to be mined and/or ore to be left behind. In the absence of any geotechnical study into pit wall stability, reasonably conservative pit angles have been assumed (60 degrees). Any change in pit wall angles is likely to materially impact on the strip ratio and pit economics.



The D-Zone pit has been optimised as a standalone pit, on the assumption that there will be no underground mining. A preliminary assessment has shown that part of the remaining resource below the pit may be economic to mine by underground methods. If ongoing work substantiates this, then a combined open pit and underground optimisation is recommended. This is likely to result in a smaller pit with additional material mined from underground.

#### **D Zone Underground Mining Potential**

A preliminary assessment was completed on the portion of the D Zone Mineral Resource under the open pit shell that could be extracted by underground mining methods. Wireframes were constructed around high grade areas based on a cut-off value of US\$70 Net Smelter Return (NSR) to simulate underground stopes with a minimum mining width of 4.0m (Figure 4). These stopes contained a total of 4.7 million tonnes @ 0.92% Cu and 25% Fe.

Additional CAPEX for the underground development has been estimated at US\$30M and includes the ramp development (two declines 560m in length), access cross cuts, mine establishment, pumping, ventilation and egress. The average NSR is US\$81/ tonnes of ore at a copper price of US\$3.25/lb and an iron price of US\$150/tonne. The operating costs have been estimated using US\$65/tonne of mined material and \$4500/m for underground development for a total OPEX of US\$64M. Accounting for both the CAPEX and OPEX, this gives a net cash margin of US\$34M.

The value of the underground mining potential at D Zone has not been included in the NPV calculation, as it does not materially impact the NPV calculation. This is due to the fact that underground mining cannot begin until the D Zone open pit has finished and will require some higher value ore (from lower cost open pits) to be displaced in order to maintain mill throughput. However, it is very likely that the D Zone underground would be mined near the end of the mine life and therefore remains an upside of US\$34M to the project.



#### Figure 4: D Zone Long Section Underground Mining Wireframes

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#### Scheduling and stockpiling

At this level of concept mining study, the production scheduling undertaken has been set at a fixed rate and average grades with no allowance for production ramp-up or build-up of stockpiles ahead of the process plant. Open pit waste material is scheduled at a constant rate six months in advance of ore production. In reality, there would be a ramp-up period as the process plant is commissioned, operators trained, recoveries and throughput optimised. A ramp-up period of 3 to 6 months would be typical for an operation of this scale.

An operating mine would normally optimise the mining schedule by targeting higher grade ore early in the mine life in order to increase revenue in the early years, with the stockpiling of lower grade ore as required. Optimising the ore mining sequence would be expected to add further value.

#### Processing

In this Scoping Study it has been assumed that all ore types will be treated through the same process plant configuration with an average ore blend. All material has been assumed to pass through the comminution and copper flotation stages of the plant before passing through the magnetic separation section to recover the magnetite as documented in the 2010 Pre-Feasibility Study.

There may be opportunity to add further value by optimising the plant by batch processing different ore types with the plant configured specifically for each ore type, rather than a blend. In addition to maximising payable metal recovery, there may be savings in plant operating and capital costs.

In the economic evaluation, a fixed recovery for copper has been used. In practice, the recovery will improve with head grade and applying a fixed recovery will tend to overstate recovery for low-grade ore and understate recovery for high-grade ore.

Also, the 2010 Pre-Feasibility Study assumed some revenue from small amounts of gold, silver and zinc. No revenue has been assumed for these metals in this Scoping Study.

#### **Discovery Zone**

The Company has included in its calculation of the NPV the assets being acquired under a Heads of Agreement between Hannans Reward Ltd (Hannans) and Avalon (HOA). The fundamental terms of the HOA were announced by Avalon on 6 May 2013. The Company also refers to the announcement made by Hannans on 4 July 2013 in relation to the Statutory Demand issued by Hannans to Avalon and Avalon's announcement on 4 July 2013 outlining the Company's response to the Statutory Demand. The Company disputes the validity of the Statutory Demand and intends to vigorously protect its rights under the HOA and apply to have the Statutory Demand set aside by the Court. The Company intends to proceed in accordance with the correct legal interpretation of the terms of the HOA. Avalon has applied to the Supreme Court of Western Australia to set aside the Statutory Demand and the matter is listed for a first Court hearing on 29 August 2013.

#### Satellite deposits

There may be opportunity to process ore from other deposits within trucking distance of the proposed plant. This may result from Avalon's ongoing exploration efforts in the area and/or negotiation with third parties to toll treat ore, or purchase/joint venture separately owned resource assets. Value adding options would be to extend the operating life of the project and/or increase the processing capacity to achieve cost savings due to economies of scale.

#### D Zone Mineral Resource Upgrade

On 26 June 2013, the Company announced a Mineral Resource estimate upgrade at the D Zone Prospect on the Viscaria Project in northern Sweden. This resource upgrade is the culmination of the recently completed 2012-2013 northern hemisphere winter extensional drill program where 43 drill holes were completed at the D Zone prospect for 12,442 metres.



Incorporating drilling information from the 2012-2013 winter extensional drill program as well as historical data deemed suitable for estimation, the new Mineral Resources for the D Zone Prospect are reported as:

- 13.6 million tonnes (Mt) @ 1.00% Cu above a 0.4% copper cut-off grade, and is classified as being 5.1 Mt @ 1.07% Cu Indicated and 8.5 Mt @ 0.96% Cu Inferred;
- 25.6 million tonnes (Mt) @ 26.4% Fe at a cut-off above a 15% Fe Mass Recovery grade, and is classified as 11.7 Mt @ 27.5% Fe Indicated and 13.9 Mt @ 25.7% Fe Inferred.

#### Table 10: D Zone Mineral Resource for Copper reported above a 0.4% Cu cut-off grade

Mineral Resource Category	TONNES (Mt)	Cu (%)	Copper Metal (t)
Indicated	5.1	1.07	55,000
Inferred	8.5	0.96	81,000
Indicated + Inferred	13.6	1.00	136,000

#### Table 11: D Zone Mineral Resource for Iron reported above a 15% Mass Recovery cut-off

Mineral Resource Category	TONNES (Mt)	Fe (%)	Mass Recovery (%)	Contained Iron (Mt)	Estimated Recoverable Iron* (Mt)
Indicated	11.7	27.5	33.4	3.2	2.7
Inferred	13.9	25.7	31.0	3.6	3.0
Indicated + Inferred	25.6	26.4	31.9	6.8	5.7

\*Estimated Recoverable Iron = Tonnes x Mass Recovery x Fe % in concentrate (69% Fe) and is based on DTR test work at a 75 micron grind size.

Note that the total Indicated and Inferred Mineral Resource reported for Copper (Table 10) and for above 15% Mass Recovery (Table 11) are not mutually exclusive; the Mineral Resource for above 15% Mass Recovery excludes 4.4Mt at 0.9% Cu above a cut-off grade of 0.4% Cu. Therefore, the overall Mineral Resource contains 30Mt; 25.6Mt from the Mineral Resource reported at a 15% Mass Recovery cut-off and 4.4Mt at 0.9% Cu above a cut-off grade of 0.4% Cu.

#### Comparison with D Zone Mineral Resource reported prior to 2012-2013 Winter drill program

The D Zone Mineral Resource prior to the recently completed 2012-2013 winter drill program was announced on 2 October 2012 and is displayed in Tables 12 and 13. The overall tonnage of the new revised Mineral Resource is approximately 30Mt, compared to approximately 15.5Mt in the previous D Zone Mineral Resource. This represents an increase of 14.5Mt or 94%.

Importantly, the increased tonnage of the overall mineral resource has also been achieved with an increase in copper and iron grade.



The tonnage of the copper Mineral Resource itself increased from 5.4 to 13.6Mt or 152%. As the grade of the copper Mineral Resource has also increased from 0.9% Cu to 1.0% Cu, this has also resulted in a 183% increase to the contained tonnes of copper. Importantly for the possibility of mining parts of D Zone via underground methods, if a 0.8% Cu cut-off is used, the copper Mineral Resource has grown from 2.0 to 7.6Mt at 1.4% Cu or 280%.

The tonnage of the iron Mineral Resource itself increased from 14.8 to 25.6Mt, or 73%. As the grade of the iron Mineral Resource has increased this has also resulted in a 78% increase to the estimated recoverable iron tonnes.

Mineral Resource Category	TONNES (Mt)	Cu (%)	Copper Metal (t)
Indicated	3.5	0.9	33,000
Inferred	1.9	0.8	15,000
Indicated + Inferred	5.4	0.9	48,000

#### Table 12: October 2012 D Zone Mineral Resource for Copper reported above a 0.4% Cu cut-off grade

#### Table 13: October 2012 D Zone Mineral Resource for Iron reported above a 15% Mass Recovery cut-off

Mineral Resource Category	TONNES (Mt)	Fe (%)	Mass Recovery (%)	Contained Iron (Mt)	Estimated Recoverable Iron* (Mt)
Indicated	9.5	25.9	31.3	2.5	2.1
Inferred	5.3	25.6	30.8	1.4	1.1
Indicated + Inferred	14.8	25.8	31.1	3.9	3.2

\*Estimated Recoverable Iron = Tonnes x Mass Recovery x Fe % in concentrate (69% Fe) and is based on DTR test work at a 75 micron grind size.



#### **EXPLORATION/DRILLING**

#### **D** Zone Mineral Resource Extension Drill Program

On 28 May 2013, the Company announced the final assay results from the recently completed drill program at the D Zone Prospect on the Viscaria Project.

All six drill holes intersected copper and iron mineralisation, extending the area of known mineralisation by up to 50m along strike to the south and 150m down plunge. The objective of the D Zone drill program was to significantly extend the copper-iron mineralisation, which has been achieved, increase the known Mineral Resources and deliver on the potential increases to the project Net Present Value as outlined in the October 2012 Scoping Study.

VDD0171 was drilled into the southwest extremity of the D Zone Prospect. This drill hole was designed to test how far the D Zone mineralisation could be extended along strike to the southwest. The success of VDD0171 indicates that the mineralisation within the D Zone Prospect further extends laterally and has not been closed off in this area.

In contrast, VDD0174 was drilled into the northeast extremity of the D Zone mineralisation. This drill hole was designed to test how far the D Zone mineralisation could be extended to the northeast. The result of VDD0174 indicates that the D Zone mineralisation does not extend laterally to the northeast and has been closed off in this area.

VDD0172, VDD0175, VDD0177 and VDD0178 were all drilled into the central part of the D Zone mineralisation. The success of VDD0172, VDD0175, VDD0177 and VDD0178 follows the success of the previously announced drill holes VDD0160, VDD0167, VDD0150, VDD0151 and VDD0153 in this area. These drill holes were planned to delineate the upper margin of the north eastern, relatively thick and moderately plunging, high grade copper-iron mineralisation zone. The success of these drill holes indicates that this plunging, high grade copper-iron mineralisation zone extends at least 150m further down plunge. There is no indication that this mineralisation is diminishing at depth and in fact, the mineralisation is increasing in copper grade with depth.

The details of the geochemical assay data for these drill holes are shown in Table 14.

Hole	Easting (RT90, m)	Northing (RT90, m)	Azi. (°)	Dip (°)	From (down hole m)	To (down hole m)	Interval Width (down hole m)	% Cu	% Fe	% CuEq	End of Hole (m)
					36.00	60.00	24.00	0.8	8.5	1.0	
VDD0171	1,680,248	7,536,770	134.3	-55	74.00	113.00	39.00	0.9	14.1	1.1	120
						including:					
					80.00	94.71	14.71	1.5	14.2	1.7	
					213.00	261.00	48.00	0.4	16.2	0.6	
			including								
VDD0172	1,680,580	7,537,276	134.3	-55	214.00	221.30	7.30	0.6	25.4	1.0	272
	,,	, , -			also including:						
					252.00	261.00	9.00	0.9	13.2	1.1	
					169.00	173.05	4.05	0.2	21.2	0.6	
VDD0174	1,681,010	7,537,633	130.3	-54.6			and				225
					198.00	201.00	3.00	0.6	4.4	0.6	

Table 14: Drill hole details and assays results.

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					319.00	338.00	19.00	0.7	24.9	1.1	
VDD0175	1,680,538	7,537,310	130.5	-55	including						379.25
					330.00	338.00	8.00	1.4	22.5	1.7	
	1,680,450 7,537,245			8.3 -55.8	349.00	364.00	15.00	0.7	27.5	1.1	
VDD0177		7,537,245 128.	128.3		including						396
					349.00	354.00	5.00	1.1	30.1	1.6	
VDD0178					179.00	187.35	8.35	0.6	26.2	1.1	
	1,680,730	7,537,340	130.3	-62.8	8 including					205	
					182.80	187.35	4.55	1.1	26.9	1.6	

On 2 May 2013, the Company announced assay results for the previous four drill holes of the drill program from the D Zone Prospect on the Viscaria Project.

All four drill holes intersected thick, high grade copper-iron mineralisation that has extended the area of known mineralisation by up to 150 metres down dip and 100 metres down plunge.

VDD0166 and VDD0169 were drilled in the northeast of the D Zone Prospect and VDD0163 was drilled in the southwest. As discussed in previous announcements, these drill holes were designed to follow up on excellent drill intersections that appear to delineate two southwest plunging, relatively thick, high grade copper-iron mineralisation in these areas.

The success of VDD0166 and VDD0169 follows the success of the previously announced drill holes VDD0128, VDD0129, VDD0138, VDD0147, VDD0156 and VDD0157 in the northeast of the D Zone Prospect. These drill holes further delineate a relatively thick, up to 82 metres, moderately plunging, high grade copper-iron mineralisation zone by extending it at least 100 metres further down plunge. At this stage, there is no indication that the D zone Cu-Fe mineralisation is diminishing at depth. In fact, the mineralisation is increasing in copper grade with depth.

The success of VDD0163 follows the success of previously announced drill holes VDD0152, VDD0155 and VDD0161 in the southwest of the D Zone Prospect. This drill hole indicates that the second relatively thick, moderately plunging, high grade copper-iron mineralisation zone also extends at least 100 metres further down plunge. As for the northeast high grade plunging zone, the recent drilling indicates that the southwest high grade zone is also increasing in copper grade at depth.

Drill hole VDD0167 was drilled into the central part of the D Zone Prospect in between the two high grade plunging, zones of copper-iron mineralisation. The purpose of this drill hole was to test the down plunge extent of previously intersected copper-iron mineralisation of moderate thickness and grade (16-18 metres thick down hole at approximately 1% CuEq\*) encountered in drill holes VDD0150 and VDD0151. Mineralisation in this area also appears to be significantly increasing in grade with depth. The deeper drill hole VDD0167 intersected 15.8m @ 1.2% CuEq\*, compared with the up plunge drill hole VDD0150, which intersected 15.4m @ 1% CuEq\*.

The details of the geochemical assay data for these drill holes are shown in Table 15.

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Table 15: Drill hole details and assays results											
Hole	Easting (RT90, m)	Northing (RT90, m)	Azi. (°)	Dip (°)	From (down hole	To (down	Interval Width (down hole	% Cu	% Fe	% CuEq	End of Hole(m)
	(	(			m)	hole m)	(m)				,
					351.00	406.00	55.00	0.5	23.0	1.1	
							including	-			
					351.00	356.00	5.00	1.1	28.3	1.6	
VDD0163	1,680,176	7,536,967	134	-56			also including	1			414.00
					397.00	406.00	9.00	1.1	25.7	1.5	
							including				
					399.19	403.00	3.81	1.8	29.9	2.3	
							1				
					384.00	466.00	82.00	0.5	22.7	0.9	
							including				
	1680662 7537462		133	133 -56	384.00	390.30	6.30	0.8	37.0	1.4	
VDD0166		7537462			also including						471
					425.08	431.00	5.92	1.5	42.3	2.1	
						also including					
					447.00	460.00	13.00	1.6	29.9	2.1	
<u>г</u>		1									
					207.2	223	15.8	0.8	21.5	1.2	
VDD0167	1 690 512	7 5 27 106	122	-58.7	207.2	213	Including 5.8	1.3	28.9	1.8	282.00
VDD0107	1,680,513	7,537,196	133		207.2	215	and	1.5	20.9	1.0	
					218	223	5	1.1	27.1	1.5	
					210	225	<b></b>		27.12	1.5	
					357.00	434.10	77.10	0.5	19.1	0.8	
							including				
	1680696 7537				357.00	364.00	7.00	1.2	27.7	1.7	
VDD0169		7537487	135	-55			also including:	T			480
					395.00	405.00	10.00	0.8	26.4	1.2	
							also including:	r			
					428.00	434.10	6.10	1.6	45.8	2.3	

Table 15: Drill hole details and assays results





#### **Drilling/Exploration - Regional**

During the quarter, exploration drilling commenced at the Tjärro Prospect ('**Tjärro**'), with the first assay results announced on 4 June 2013. Tjärro is considered one the most prospective copper-gold regional prospect closest to Avalon's flagship Viscaria Project in northern Sweden. Tjärro is situated approximately 20km northeast of the Viscaria Project and is part of Avalon's 720km<sup>2</sup> exploration tenement package.

Drill hole TD005 intersected 11.85m @ 0.4% copper and 0.2g/t gold from 91.15m, including 2.85m @ 0.7% copper and 0.5g/t gold (Table 16). This hole was drilled approximately 200 metres along strike of historic drilling results including: 15m @ 1.3% Cu from 80m, including 8m @ 1.7% Cu; 17m @ 1% Cu, including 7m @ 1.4% Cu; and 34.45m @ 0.6% Cu & 0.4g/t Au from 85.15m, including 3.6m @ 1.6% Cu & 1.2g/t Au. The results from drill hole TD005 and the historical drilling indicate that the Tjärro prospect contains copper and gold mineralisation over hundreds of metres of strike and at shallow depths.

Avalon is planning on conducting ground geophysical surveys, in order to determine the full strike extent of the coppergold mineralisation at Tjärro. It is anticipated that the geophysical data will be able to give indications as to where the copper-gold mineralisation is strongest and how the mineralisation varies along strike and at depth. Further drilling will be targeted provided the geophysical data generates additional targets.

Hole	Easting (RT90, m)	Northing (RT90, m)	Azi. (°)	Dip (°)	From (down hole m)	To (down hole m)	Interval Width (down hole m)	% Cu	g/t Au	End of Hole (m)
					91.15	103.00	11.85	0.4	0.2	
TD005	TD005 1,696,825 7,555,457 2	270	0 -50	including:					198.1	
					91.15	94.00	2.85	0.7	0.5	

#### Table 16: Drill hole details and assays results.

#### Bankable Feasibility Study

The BFS of the Viscaria Copper-Iron Project commenced in October 2010 and remains suspended pending funding arrangements.

#### Approvals

#### a) MEC

The Mining Exploitation Concession (MEC) for the Viscaria Project was submitted to the Bergsstaten (Mines Department) in April 2010 and was significantly amended in early 2011 following submissions from the city of Kiruna. The Bergsstaten approved the MEC for Viscaria in two licences; Viscaria K3 and Viscaria K4. The two MEC's granted cover the D zone and the southern area of the A Zone and B Zone mining areas.

A third MEC application (Viscaria K7) remains under consideration by Bergsstaten pending an amendment to the Kiruna town planning act to allow for the grant of a mining lease which includes the power generation windmills and a power line affected by the northern parts of A Zone and B Zone. Avalon has commenced the process to have the amendment to the Kiruna town planning act ratified by the Kiruna Kommun, hence allowing the MEC K7 to be granted.

The granting of the MEC is a precursor to consideration by the regulator of the Environmental Impact Assessment and permits access to the historical underground mining openings to check present day geotechnical conditions and groundwater levels.



#### b) Environment Impact Assessment

The Environment Impact Assessment (EIA) was submitted to the Environmental Court of Sweden (ECS) in April 2011. Following the suspension of the BFS, the Company sought suspension of consideration of the EIA by the ECS for up to 12 months to reduce expenditure. A response from the ECS to the request is yet to be received. Avalon is currently making preparations to resubmit the EIA before the end of 2013.

#### **CORPORATE**

#### **Strategic Review Process**

On 12 June 2013, the Company announced that it had commenced a Strategic Review Process to determine how best to fund the future development of the Viscaria Copper Project in Sweden and maximise shareholder value.

The Strategic Review Process will consider the following aspects of the Viscaria Copper Project and Avalon:

- Funding requirements for the Viscaria Copper Project to complete a Bankable Feasibility Study;
- Opportunities to capture value from the Viscaria Copper Project;
- Potential joint venture arrangements;
- Project and commodity focus of Avalon;
- Strategic partnerships; and
- Company funding arrangements.

The Company will assess all options to fund a Bankable Feasibility Study for the Viscaria Copper Project, including bringing on board a strategic shareholder or partner to provide the necessary funding. This assessment was commenced subsequent to funding arrangements as announced on 15 April 2013 not proceeding. The process is expected to take some 2 to 3 months to complete.

#### Funding

On 5 June 2013, the Company announced the completion of a further placement to raise A\$1.15M (before costs at a price of 1.5 cents per share to institutional and cornerstone investors in the Company;

On 24 April 2013, the Company announced the completion of a placement to raise A\$1.25 million (before costs) at a price of 5 cents per share to support the continued exploration and advancement of its flagship Viscaria Copper-Iron Project in northern Sweden. Foster Stockbroking Pty Ltd acted as Lead Manager to the placement and shares were issued to institutional and cornerstone investors in the Company.

The funding from the placements will be primarily applied to progress work at the Viscaria Copper-Iron Project in northern Sweden and for general working capital.

#### **Cash Resources**

As at 30 June 2013, the Consolidated Entity had cash reserves of \$1.18M.

#### **Shareholder Information**

At 30 June 2013, the Company had 562,017,007 fully paid ordinary shares on issue and approximately 994 shareholders.

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#### **ABOUT AVALON**

Avalon is an ASX listed mineral exploration company with high quality assets in Sweden, one of the leading metal producing countries in the European Union.

Avalon's flagship asset is the Viscaria Copper-Iron Project located 1,200km north of Stockholm where the Company has delineated a global resource of 54.9 million tonnes of copper mineralisation at 1.1% Cu, containing 609,000 tonnes of copper and 25.6 million tonnes of iron mineralisation at 26.4% Fe, containing 5.7 million tonnes of recoverable iron.

The Viscaria Project is surrounded by established infrastructure, lying immediately adjacent to LKAB's Kirunavaara Iron Ore operation and in close proximity to high-capacity rail and ports.

#### ABOUT SWEDEN

Sweden has a 1,000 year mining history, is the largest producer of iron ore in the European Union and is a leading producer of base metals (copper, zinc, lead) and precious metals (gold and silver).

There are excellent discovery opportunities, with much of the country underexplored by modern standards. Furthermore, Sweden possesses a world-class geological database and favourable minerals legislation, is politically and economically stable and has mining know-how, highly trained personnel and excellent infrastructure.

Sweden has recently been ranked by the Fraser Institute as the second best country (behind Finland) for developing mineral projects.

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

Mr Jeremy Read – Managing Director Avalon Minerals Limited T: 07 3368 9888 E: jeremy.read@avalonminerals.com.au www.avalonminerals.com.au www.twitter.com/avalonminerals





#### \*Copper Equivalent Formula

% CuEq = % Cu + ((%Fe x Fe price US\$/tonne x Fe recovery)/(Cu price US\$/tonne x Cu recovery)) Cu price US\$/tonne = \$7,163.00 (US\$3.25/lb) Cu Recovery = 90% Fe price US\$/tonne = \$144.93 (calculated from US\$100 Net Price per tonne of magnetite concentrate containing 69% Fe) Fe Recovery = 70%

Results from extensive metallurgical test work completed by Avalon Minerals Limited indicate that both copper (Cu) and iron (Fe) have a reasonable potential to be recovered from the D Zone Mineral Resource contained within the Viscaria Project.

#### **Competent Persons Statement**

The information in this report that relates to Mineral Resources and exploration targets is based upon information reviewed by Mr Jeremy Read BSc (Hons) who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Read 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Read consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Mineral Resource estimate for the D Zone Prospect was compiled and prepared by Matthew Readford (MAusIMM) of Xstract Mining Consultants who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2004 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The mineral resource estimate for the Discovery Zone is effective from 13 January 2012 and has been prepared by Mr Thomas Lindholm, MSc of GeoVista AB, Luleå, Sweden acting as an independent "Competent Person". Mr Lindholm is a Fellow of the Australasian Institute of Mining and Metallurgy (Member 230476). Mineral resources of the Rakkuri iron deposits have been prepared and categorised for reporting purposes by Mr Lindholm, following the guidelines of the JORC Code. Mr Lindholm is qualified to be a Competent Person as defined by the JORC Code on the basis of training and experience in the exploration, mining and estimation of mineral resources of gold, base metal and iron deposits.

The Scoping Study results were compiled and prepared by Tim Horsley (MAusIMM) of Xstract Mining Consultants who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2004 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The Scoping Study referred to in this announcement is based on low level technical and economic assessments and is insufficient to support Ore Reserves or to provide assurance of an economic development case at this stage or to provide certainty that the conclusions of the Scoping Study will be realised.

**Open Pit Mining Scenario** includes some material from Inferred Mineral Resources and therefore, exploration drilling and re-estimation may result in changes to the economically minable portion of the resources.

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## **Company Directory**

#### AVALON MINERALS LIMITED ABN 68 123 184 412

Web site: www.avalonminerals.com.au Email: info@avalonminerals.com.au Stock Exchange Listing

Australian Stock Exchange - ASX Code: AVI

#### **Investor Information Contacts:**

Mr Jeremy Read - Managing Director Avalon Minerals Limited Tel: 07 3368 9888 Mob: 0409 484 322 Em: jeremy.read@avalonminerals.com.au

#### Shareholder Enquiries:

Share registry matters should be directed to:

Computershare Investor Services Phone: 1300 850 505 Website: computershare.com.au

#### **Issued capital:**

Ordinary shares: 562,017,007 (AVI)

#### **Directors:**

Crispin Henderson – Chairman Jeremy Read – Managing Director Dato Philip Siew – Deputy Chairman Edward Siew – Non-Executive Director Paul Niardone – Non-Executive Director Gary Goh – Non-Executive Director

#### **Registered Office:**

Level One 65 Park Road Milton Queensland 4064 Phone: 07 3368 9888 Fax: 07 3368 9899

#### **Company Secretary:**

Roslynn Shand

Rule 5.3

## Appendix 5B

## Mining exploration entity quarterly report

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

Name of entity

Avalon Minerals Limited ABN Quarter ended ("current quarter") 68 123 184 412 30 June 2013 Consolidated statement of cash flows Current quarter Year to date Cash flows related to operating activities \$A'000 (12 months) \$A'000 Receipts from product sales and related 1.1 debtors Payments for (a) exploration & evaluation 1.2 (2,520) (10, 572)(b) development (c) production (d) administration (506) (2,398) Dividends received 1.3 Interest and other items of a similar nature 1.4 14 117 received Interest and other costs of finance paid 1.5 Income taxes paid 1.6 \_ Other (provide details if material) 1.7 **Net Operating Cash Flows** (3,012) (12,853) Cash flows related to investing activities Payment for purchases of: 1.8 (a) prospects (b) equity investments (7) (c) other fixed assets (260) Proceeds from sale of: 1.9 (a) prospects (b) equity investments (c) other fixed assets Loans to other entities 1.10 Loans repaid by other entities 1.11 \_ Other (provide details if material) 1.12 Net investing cash flows (7) (260) Total operating and investing cash flows 1.13 (carried forward) (3,019) (13,113)

<sup>+</sup> See chapter 19 for defined terms.

1.13	Total operating and investing cash flows		
	(brought forward)	(3,019)	(13,113)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	2,395	14,256
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Capital raising costs	(80)	(707)
-			
	Net financing cash flows	2,315	13,549
	Net increase (decrease) in cash held	(704)	436
1.20	Cash at beginning of quarter/year to date	1,880	740
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	1,176	1,176

Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

1.23       Aggregate amount of payments to the parties included in item 1.2       113         1.24       Aggregate amount of loans to the parties included in item 1.10       -			Current quarter \$A'ooo
1.24 Aggregate amount of loans to the parties included in item 1.10 -	1.23	Aggregate amount of payments to the parties included in item 1.2	113
	1.24	Aggregate amount of loans to the parties included in item 1.10	-

 1.25
 Explanation necessary for an understanding of the transactions

 Director's remuneration.
 113

## Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Nil

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Nil

<sup>+</sup> See chapter 19 for defined terms.

-

## **Financing facilities available** Add notes as necessary for an understanding of the position.

		Amount available \$A'ooo	Amount used \$A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	-	-

## Estimated cash outflows for next quarter

		\$A'ooo
4.1	Exploration and evaluation	(400)
4.2	Development	-
4.3	Production	-
4.4	Administration	(636)
	Total	(1,036)

## **Reconciliation of cash**

show	nciliation of cash at the end of the quarter (as on in the consolidated statement of cash flows) e related items in the accounts is as follows.	Current quarter \$A'ooo	Previous quarter \$A'ooo
5.1	Cash on hand and at bank	1,176	1,880
5.2	Deposits at call	-	-
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	1,176	1,880

## Changes in interests in mining tenements

		Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed	Nil			
6.2	Interests in mining tenements acquired or increased	Nil			

<sup>+</sup> See chapter 19 for defined terms.

# **Issued and quoted securities at end of current quarter** Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference +securities (description)				
7.2	Changes during quarter				
7.3	<sup>+</sup> Ordinary securities	562,017,007	562,017,007		
7.4	Changes during quarter (a) Increases Placement Performance	21,075,000 76,103,496		.05 .015	
	Rights Issued (c) Decreases through returns of capital, buy- backs				
7.5	*Convertible debt securities (description)				
7.6	Changes during quarter				
7.7	<b>Options</b> (description and conversion factor)	1,000,000 500,000 300,000 6,000,000 7,800,000 12,200,000	Nil Nil Nil Nil Nil Nil	Exercise price 40 cents 30 cents 40 cents 5 cents 5 cents 5 cents 5 cents	Expiry date 31/01/2014 1/07/2014 27/04/2015 30/09/2015 30/09/2015 30/09/2015
	Performance Rights	9,750,000 15,550,000	Nil Nil	Nil	5/06/2019 5/06/2019
7.8	Issued during quarter <b>Options</b> <b>Performance</b> <b>Rights</b>				
7.9	Exercised during quarter <b>Performance</b> <b>Rights</b>				
7.10	Expired during quarter				
7.11	<b>Debentures</b> (totals only)				
7.12	Unsecured notes (totals only)				

<sup>+</sup> See chapter 19 for defined terms.

## Compliance statement

- <sup>1</sup> This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here: .....

nere: ..... (Company Secretary) Date: 31 July 2013

Print name: Ros Shand

## Notes

- <sup>1</sup> The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities.** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- 5 Accounting Standards ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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<sup>+</sup> See chapter 19 for defined terms.