ASX/Media Release

# ACQUISITION OF TWO ADVANCED COPPER PROJECTS IN NORTHERN SWEDEN

# Key Points

- Avalon purchases two historical copper mines, Viscaria and Adak in northern Sweden from Phelps Dodge Exploration Sweden AB, a subsidiary of global mining giant, Freeport-McMoRan Exploration Corporation.
- Viscaria was operated by Outokumpu between 1982 and 1997, during which time approximately 12.5 million tonnes of ore at 2.3% copper and 0.3g/t gold for 298,000 tonnes of copper concentrates was produced from the A Zone.
- The 2.8km long B Zone is the largest of the unmined zones and is 200m west of the A Zone.
- Total resources mined at Adak approximately 6.3 million tonnes @ 2.02 percent copper and 4.75 million tonnes @ 0.87%copper plus 3.0% zinc.
- Modern Electro Magnetic (EM) techniques to be applied with Australian mining, exploration and geological expertise, to identify exploration and development opportunities at both projects.
- Appointment of specialist consultants in Sweden and Australia to review and fast-track the projects to JORC compliant status.
- Sweden has an active mining culture and industry and is regarded as having extremely low sovereign risk.

Avalon Minerals Ltd (ASX: AVI) is pleased to announce that it has signed an agreement with Phelps Dodge Exploration Sweden AB, a subsidiary of Freeport-McMoRan Exploration Corporation ("Phelps Dodge") for the purchase of two advanced copper projects in northern Sweden, the Viscaria and Adak copper mines, located approximately 1,200km and 800km north of Sweden's capital, Stockholm, respectively.

Under the agreement with Phelps Dodge – a subsidiary of the world's largest publicly traded copper company, Freeport-McMoRan Exploration Corporation – Avalon has agreed to pay US\$420,000 cash plus an aggregate 1% Net Smelter Royalty (NSR) on production to acquire both projects.

## **Historic Viscaria Copper Mine**

The historic Viscaria Copper mine is located in the Norrbottens area of Northern Sweden, 4km from the 2.3 billion tonne (at 68% Fe) Kiruna mine, Sweden's largest iron ore mine and the world's second largest underground mine.

VIscaria is the largest copper-iron greenstone-hosted deposit in northern Sweden and has been interpreted as a volcanogenic massive sulphide deposit.

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# ASX Code: AVI

**Issued Capital** 44 million shares 11 million unlisted options

Market Capitalisation ~A\$6 million

Cash A\$1.7 million

Directors David McSweeney (Managing Director & CEO)

> Stephen Stone (Director)

Gary Steinepreis (Director)



4 March 2008



Global steel company Outokumpu closed the Viscaria mine in 1997, after approximately **12.54m** tonnes of ore grading **2.29% Cu** had been produced, mainly from the A zone.

The project was acquired by Phelps Dodge in 2003 after the mine had been closed and rehabilitated by Outokumpu. At the time of its closure, the spot copper price was approximately US\$1.00/lb compared to a spot price of over US\$3.60/lb today. Only minimal exploration and no drilling has been conducted at Viscaria since the mine closed in 1998.

Avalon has acquired three exploration licences at Viscaria (101,102 and 103), and has applied for an exploration permit over open ground and along strike to the north, for a total area of 50km<sup>2</sup>.

In addition, Avalon has commenced reviewing the remaining uncategorised copper mineralization at Viscaria in light of the substantial increase in the copper price, with the aim of determining how much of the remaining copper mineralization can be classified as Joint Ore Reserves Committee (JORC) compliant.

According to historic reports, mining commenced in the A Zone at VIscaria in 1982 with initial resources in the three main parallel mineralised horizons at Viscaria - the A, B and D zones - of approximately **30m tonnes** @ **1.5% copper**. The largest of the unmined mineralised zones is the 2.8km long B zone, which is 200m west of the 3km long A zone, where the bulk of the 12 million tonnes of historical mining took place and over 4km of decline was developed.

The remaining copper mineralisation at the B zone and other zones at Viscaria were estimated by Outokompu as part of its closure report in 1998. As the estimates by Outokumpu were not prepared in accordance with the JORC code, Avalon will be generating new estimates in due course.

An intersection at the A zone - within an unmined area approximately 500m north of the limits of the historical development - of **6m @ 8.2% Cu from 76.5m**, highlights the exploration potential to the north. The exploration potential to the south of the zone comprises the plunge extensions below 500 metres where to date, drilling has been limited.

The Viscaria copper project has significant near-term production potential with Avalon planning to commence pre-feasibility studies in 2008. The first tasks will be:

- the capture and validation of all existing data;
- construction of a resource model in preparation for mining studies;
- concentrate marketing reviews;
- infill and extension drilling; and
- metallurgical test work.

These activities will be followed by mine and process design and financial analysis and to expedite the process Avalon has appointed Southern Geoscience to review the historical EM database and to advise on suitable modern EM techniques for target generation.

#### Adak

The Adak copper project contains four historical mines – Adak, Lindskold, Brannmyran and Rudtjebacken - covering an area of 26.71 km<sup>2</sup>. It is located in the Skelleftea mining district of Northern Sweden, approximately 25km north of the Storliden Zinc and Copper deposit which is owned and operated by Lundin Mining. The Storliden Mine was discovered in 1998 and became operational in 2002 with ore being processed by Boliden at its processing facilities 90km from the mine.

The Skelleftea field is 150km long by 50km wide and is well known for its large number of historical volcanogenic massive sulphide (VMS) copper, zinc and gold operations. Examples include the Kristeneberg mine which, up to 1993, produced 16.2mt of zinc, copper, gold and silver and the Boliden Ore mine, which was one of Europe's largest gold deposits with average gold grades in concentrate of 15g/t producing 128 tonnes of gold.



The Adak mines were operated by the Government of Sweden between 1940 and 1977 when the mine was closed by Swedish mining giant Boliden. The total material mined at Adak was approximately 6.3mt @ 2.02% Cu plus 4.75mt @ 0.87% Cu and 3.0% Zn.

The first indications of ore bodies at Adak were found by the Swedish Geological Survey in 1921. These initial findings were confirmed in 1929-30 by electro-magnetic surveys of the area, following which, drilling revealed the presence of economically workable deposits. Prospecting to discover the size of the ore bodies continued until 1933, when shaft sinking and underground development commenced to prepare what is now known as the Adak ore body for work.

Avalon's attraction to Adak is due to the exploration potential surrounding the existing mines and at depth, and its strategic location within trucking distance of existing concentration facilities. The Company considers Adak to be an exciting brownfields project in an active mining district acquired on very reasonable terms.

It is significant that there has been no exploration or modern Electro Magnetic (EM) work conducted at Adak since the mine closed - as the result of a fire and of low copper prices - some 30 years ago. Avalon considers that the application of modern EM to the Adak project will be an invaluable tool in the generation of new targets for drill testing in 2008.

#### Mining in Sweden

Sweden has a very rich mining history which has been of great economic importance to the country. Mining and metal production are still important Swedish industries, and Sweden is one of the leading ore and metal-producing countries in the EU.

The total annual production of ores and metals in Sweden amounts to about 45 million tonnes, half of which is iron ore and the rest gold, silver, copper, zinc and lead ore. Sweden is by far the largest iron ore producer in the EU, and it is also among the leading producers of base and precious metals.

Today, exploration is carried out by large and small Swedish and foreign exploration companies and as a result of exploration activities in the last few years, two new mines have come into operation and a new gold mine will start production this year. During the same period, the quantity of profitable ores in existing mines has been increased by effective and successful exploration in the vicinity of these mines.

The many benefits of operating in Sweden include well developed infrastructure, a highly skilled mining and exploration workforce, extremely low sovereign risk and a very strong mining culture built up over many decades.

## Summary

The Viscaria and Adak copper projects are part of large mineralised systems with potential for additional copper and zinc deposits within the landholdings acquired by Avalon.

The Company will aim to expedite exploration and resource definition and, in order to fast-track its exploration activities, has recruited – and will continue to recruit – a range of specialist consultants in Sweden and Australia to review the projects and assist in planning exploration programs.

Commenting on the acquisition, Avalon's Chairman and Managing Director Mr David McSweeney, said: "The acquisition of Viscaria and Adak represents a culmination of over 6 months of project reviews in both Australia and overseas and we are very pleased to have added such advanced projects to our portfolio.

"New discoveries along strike and at depth will extend the resource and further increase the value of both of these projects," he said.

"Both projects provide an exciting opportunity for Avalon to add copper resources to our diversified portfolio of Australian assets, with the added benefits of being in an active mining country with very low sovereign risk and good infrastructure including concentrators and smelting facilities" he added.



"The challenge for us was not in finding opportunities for Avalon to acquire, but rather in selecting the right projects in line with our guidelines. We believe that these projects provide a very exciting future for Avalon's shareholders with the potential to produce cash flows should the mines be re-opened."

## Competent Persons Statements

The information in this report relates to Exploration information reviewed by Mr Geoff Hewlett MSc DIC MAIG who is a Member of the Australasian Institute of Mining and Metallurgy and is the company's Exploration Manager. Mr Hewlett has over 30 years of exploration experience in a variety of mineral deposit styles including uranium, base metals and gold mineralisation and he consents to inclusion of the information in this report in the form and context in which it appears. He qualifies as a Competent Person as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves".

- ENDS -

Released by: Nicholas Read/Jason Cunningham Read Corporate Telephone: +61 (0)8 9388 1474 On behalf of: Mr David McSweeney Managing Director and CEO Avalon Minerals Limited Mobile: +61 0439 399 318

# Avalon Minerals – Background

Avalon Minerals Ltd listed in March 2007 with the aim of developing and discovering mineral deposits.

Avalon's corporate objective is to build a diversified resource mining group based on cash flows from producing operations. The primary strategy for achieving this objective is to acquire advanced resource projects with the potential for early cash flow.

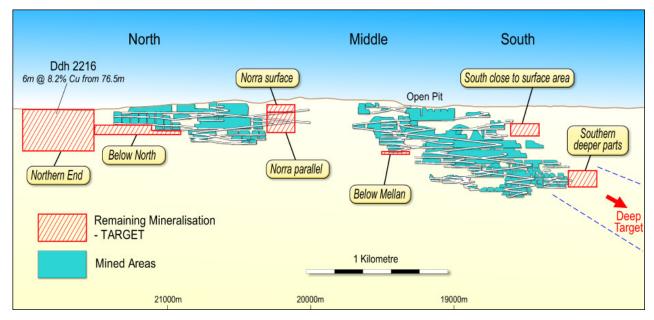
Avalon's aim is to explore its current portfolio of copper, zinc and uranium assets in its own right and with the use of joint ventures, whilst expanding its portfolio in Australia and overseas.





Project Location Map





Viscaria Project – 'A' Zone Ling Section