

10 March 2011

ASX ANNOUNCEMENT

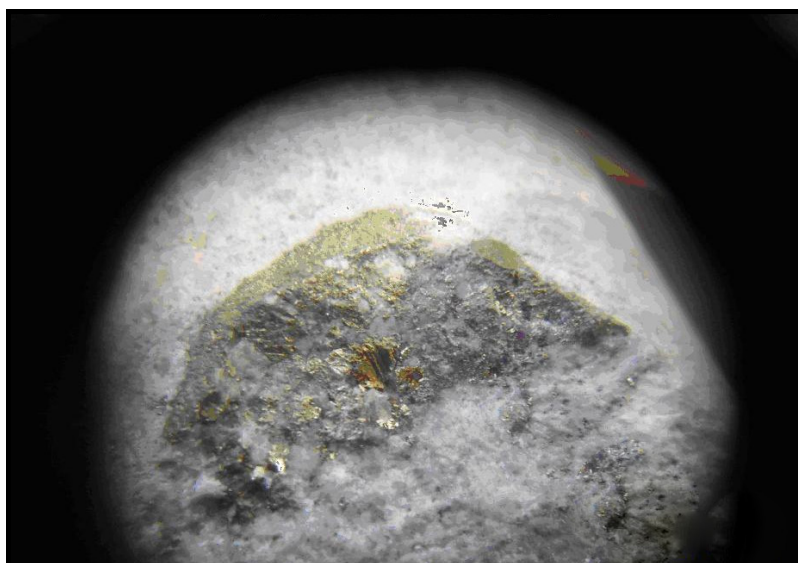
## REVIEW OF HISTORIC DIAMOND CORE CONFIRMS COPPER PORPHYRY POTENTIAL AT CERRO BLANCO PROJECT

- Review of historic core shows abundant copper sulphides and native copper
- Porphyry-style copper mineralisation potential confirmed
- Rock type, alteration and copper mineralisation similar in style to nearby major copper deposits
- Company scheduled to commence diamond drill testing high priority target at Cerro Blanco in April 2011

Argentina Mining Limited (**ASX: AVK**) is pleased to advise that its Argentine Country Manager, Jorge Bastias, has located the full suite of core samples from three diamond holes (DDH) drilled 43 years ago by the Argentine Government at the El Leoncito Prospect, on the Company's flagship Cerro Blanco porphyry copper-molybdenum-gold project.

A review of the rock-types, analytical results, age, alteration types and zonation provides preliminary confirmation that the El Leoncito Prospect at Cerro Blanco is a good example of a copper-mineralized porphyry whose potential for economic copper mineralisation, based on similarities with nearby geological analogues, warrants comprehensive testing.

Drill pad and access preparation are currently underway and a diamond drill rig booking is confirmed for drilling to commence in April 2011.



**Figure 1 - Core photograph 1 – DDH CB3 – at 122m**  
**Mass of primary chalcopyrite and bornite in potassic altered andesite**

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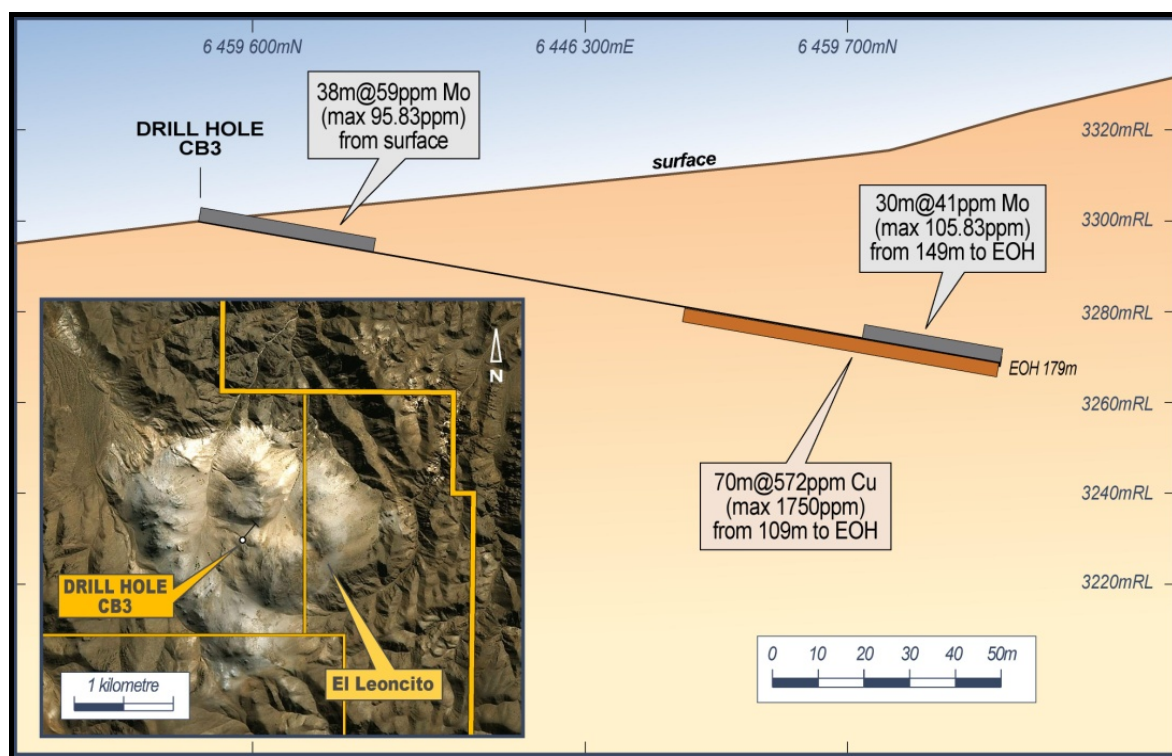
### Historical Drill Core

After AVK’s Directors inspected the El Leoncito site in September 2010, a priority was set for locating the historical drill core which had been considered likely to have been lost or discarded.

Mr Bastias has now advised the Directors that the core from three diamond holes (DDH CB1, CB2 & CB3) has been located in Government archives in Mendoza city, 120 kilometres southeast of the Cerro Blanco Project.

The original drill logs were also located. They confirm that none of the holes had been fully logged geologically, and analyses had only been undertaken for copper and molybdenum.

Review of the core from DDH CB3 (179m) (Figure 2), the deepest and most significant of the three holes in terms of intercepts and grade, confirms the existence of an alternating sequence down-hole<sup>1</sup> consisting of an iron-rich goethite-jarosite-silica cap developed on dacitic tuff (0-110m), andesite (110-129m), dacitic tuff (129-147m), andesite (147-173m) and dacitic tuff (173m–EOH 179m).



**Figure 2 – Stylized section of DDH CB3 showing Copper & Molybdenum intercepts of interest (from AVK Prospectus)**

Alteration is noted as pervasive argillic style (0-54m), followed by quartz-sericite (54-82.8m) and finishing in potassic style alteration (82.8 – EOH 179m).

Observed primary and secondary sulphide mineralisation has been logged as relict **pyrite** and **chalcopyrite** in the pervasively leached argillic zone (36.6-54.0m), followed by **pyrite-chalcopyrite-**

**bornite** (54.0-82.8m) and finishing in **pyrite-chalcopyrite-bornite**-minor **chalcocite** and **native copper**, with fine possible **sphalerite** and/or **galena** (82.8-EOH 179m)<sup>2</sup>.

The hole was terminated before fully penetrating the zone of enrichment and did not reach the primary zone. It was observed that the leached zone in DDH CB3 transitions to the zone of enrichment without passing through any zones of obvious classic oxide copper colouration.

Three fault zones were noted that appear to be a series of thrust faults responsible for control of lithological repetitions and alteration. Combined with the shallow angle of the holes, this repetition may explain the apparent paucity of copper oxide minerals observed in the hole.

The rocks have been dated as Permo-Triassic, corresponding to the Choiyoi cycle. **This is consistent with most porphyry copper projects in the mountains of San Juan which are hosted in rocks of this age.**

The host rock type, age, copper mineralisation and alteration characteristics observed in DDH CB3 are “very similar” to those observed at Minera Andes Inc.’s (TSX: MAI)<sup>3</sup> 100%-owned advanced-stage Los Azules porphyry copper project (2010 resource estimate includes: Inferred 127 million tonnes of copper mineralisation at 0.86% Cu; Indicated 67 million tonnes at 0.95% Cu) in the Cordillera of San Juan Province, only 125 kilometres northwest of Cerro Blanco.

Diamond core from the other two holes DDH CB1 and DDH CB2 was also reviewed. CB1 (85m) is dominantly in dacitic tuff and exhibits pervasive argillic alteration. It did not enter oxide mineralisation or secondary enrichment, although fine disseminated relict **pyrite** and **chalcopyrite** was noted. DDH CB2 (39.5m) was too short to penetrate below the silica-iron capping, but exhibits argillic alteration of dacitic tuffs, with goethite and jarosite.

**The company has scheduled drilling at the prospect for April 2011 and is well-advanced in the necessary preparatory work, including confirmation of the drill rig booking.**

A total of approximately 900m in three holes is scheduled for the first phase of drilling to confirm the results of the original Government holes and provide an initial test of the target. The new holes will be more optimally sited and oriented and will penetrate deeper, with the object of testing all expected zones, including the primary zone, to down-hole depths of nominally 300m.

Core will be assayed for a more comprehensive geochemical suite than that undertaken in the historic work, and will include copper, molybdenum, gold, lead and zinc, along with other appropriate geochemical pathfinders.

The following Figures 3 and 4 show core boxes from DDH CB3, and a sample of copper-mineralized core:



**Figure 3 – Argentina Mining Ltd geologist with core trays from Hole CB3**



**Figure 4 - Core photograph 2 – DDH CB3 - 163m  
Bornite in potassic altered andesite**

## Background

Original exploration of the El Leoncito area of the Cerro Blanco Project was undertaken by the Argentine Government agency Fabricciones Militares (FM) between 1965 and 1968, with several programs being undertaken, including geochemical sampling for copper and molybdenum (279 soil samples; 334 rock samples; 191 stream sediment samples), Induced Polarization Geophysics (8 line Kilometres) and Diamond core drilling (303.5m). Drilling was conducted in May 1968 by FM, with core from the three holes being analysed only for copper and molybdenum. As described in Argentina Mining Limited's Prospectus (2010-2011), the deepest and most interesting of the three holes, CB3 (179m), featured the following significant intercepts:

**TABLE 1 – DIAMOND DRILL HOLE CB3 SIGNIFICANT INTERCEPTS**

From (m)	To (m)	Intercept (m)	Avg Grade (ppm)	Maximum (ppm)	Element
0	38m	38	59	95.83	Molybdenum
109	179 (EOH)	70	572	1750	Copper
149	179 (EOH)	30	41	105.83	Molybdenum

## Overview of Argentina Mining Limited

Argentina Mining Limited closed the Initial Public Offering of its securities at 5pm WST on Monday 28 February 2010. The Issue was heavily oversubscribed. The Company listed on ASX on 9th March 2010.

The Company is exploring a suite of gold and base metal projects in San Juan Province, Argentina. These projects range from established copper-gold projects at Cerro Blanco, vein and gold and copper mineralisation at Amiches, San Francisco and Tres Amigos and regional exploration projects near Barrick Gold Corporation's major Veladero (Reserves 12Moz Au) and Pascua-Lama (Reserves 17.8Moz) gold operations.

Drilling is planned for Cerro Blanco in the first Quarter of 2011, with drilling at other projects to follow throughout the remainder of the year.

## Notes and Disclaimers:

- 1 **"... alternating sequence down-hole"**: the use of this expression is intended to distinguish the sequence observed only in the particular drill intercept, whose true origins cannot be ascertained with the information available, but may be attributable to some process other than the development of a normal sedimentary or intrusive sequence, such as repetitive faulting.

- 2 **Minerals and geological terms referred to:**

**Andesite** a dark coloured, fine-grained extrusive rock

**Argillic** pertaining to clay or clay minerals, in the context of certain minerals of a rock are converted to clay minerals. The "argillic" zone is a zone in porphyry ore deposits characterized by a quartz-kaolin-montmorillonite-chlorite-biotite alteration assemblage.

**Chalcopryrite, Bornite & Chalcocite** are copper ore minerals

**Dacite** a fine grained extrusive rock with the same general composition as andesite

**EOH** end of hole

**Goethite** a yellow, reddish or brownish-black iron hydroxide mineral occurring especially as a weathering product in the gossans of sulphide-bearing ore deposits.

**Jarosite** an ochre-yellow or brown mineral of the alunite group which consists of hydrous iron sulphates which occur as weathering products

**Native copper** refers to copper found naturally in its metallic state, often in association with other primary or secondary copper minerals such as those referred to above

**Oxide** an area or zone in rocks or mineral deposits modified by surface or groundwater.

**Porphyry** an igneous rock of any composition that contains conspicuous phenocrysts (large crystals) in a fine-grained groundmass, often used as an adjective e.g. “porphyritic andesite” or “dacite porphyry”.

**Potassic** hydrothermal alteration resulting from potassium metasomatism; a common style of alteration in the deep central cores (“the potassic zone”) of porphyry base-metal systems, characterized by introduced or recrystallised potassium feldspar and biotite, minor sericite and minor but persistent anhydrite (calcium sulphate  $\text{CaSO}_4$ ).

**Pyrite** is an iron sulphide commonly found in mineralized systems, often associated with other ore minerals such as those referred to following:

**Sericite** a white, fine-grained potassium mica occurring in small scales and flakes as an alteration product of various alumina-silicate minerals, often the product of hydrothermal, deuteritic or metamorphic processes.

**Sphalerite** and **Galena** are sulphide minerals of Zinc and Lead respectively, and are often found in association with pyrite and copper minerals, such as those referred to above.

**Tuff** a general term for all consolidated pyroclastic rocks

- 3. Minera Andes Inc** (<http://www.minandes.com/projects/los-azules-project/default.aspx>) is neither an asset of nor a party related to Argentina Mining Limited and is referred to only in the context of an inferred geological analogue, based on limited information to date. Any analogy is in the context of its value to geological understanding and exploration and should not be taken to mean that such geological, mineralisation or resource conditions as exist at Los Azules will automatically apply at Cerro Blanco.

### Competent Person Statement

The information in this report relating to Exploration Results is based on information compiled by Mr Doug Bright, who is a member of the Australasian Institute of Mining and Metallurgy and a Director of and consultant to Argentina Mining Limited. Mr Bright has sufficient experience relevant to the style of mineralisation and type of deposits 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 Bright consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.