

31 January 2013

ASX ANNOUNCEMENT

December 2012 Quarter Activity Report

HIGHLIGHTS

San Francisco Project

- 36m @ 1.23g/t Au & 4.85g/t Ag from part of a 3,700m long epithermal quartz reef
- Only the central 6m wide reef in a 50m wide, three-reef system sampled
- Overall reef system dimensions indicate large tonnage potential
- Elevated Arsenic to 5301ppm & Mercury to 228ppm confirm epithermal affinities
- A separate anomalous porphyry Au-Ag-Cu-Mo system defined over 1.4 x 1.6 kilometres

Amiches Project

- 2m @ 18.91g/t Au & 389.51g/t Ag from a 10m x 3m dacitic hydrothermal breccia outcrop
- Project lies within highly-mineralized El Indio Belt, host to major Au-Ag-Cu projects
- Previous sampling records 1m @ 4.9g/t Au & >100g/t Ag and up to 12.4g/t Au & 60g/t Ag
- High mercury response confirms epithermal origins
- High Au & Ag grades indicate sample site is on or near epithermal boiling zone
- Extensive alteration indicates potential for large high-grade epithermal Au-Ag mineralization
- Follow-up sampling, mapping and geophysics in progress to define drill targets

Cerro Blanco Project - Copper Hill Cu-Au-Mo porphyry system

- Argentina Mining (ASX:AVK) signs MOU with New Destiny Mining Corporation (TSX.V:NED) to Joint Venture its interest in the Cerro Blanco Project
- NED to have an exclusive option to purchase undivided 60% interest
- Argentina Mining to retain 31.25% and Vendor to retain 8.75% interest
- NED to commit US\$2 million in a two year drilling-based exploration program
- Argentina Mining to receive a \$300,000 cash payment and be issued shares equal to 12.5% of the total issued shares in NED
- NED to assume responsibility for all remaining option payments to the Vendor, totalling US\$150,000, and a US\$200,000 payment to the Vendor on decision to commence a Bankable Feasibility Study

Tres Amigos Project

- Argentina Mining signs agreement to assign its interest in Tres Amigos Project to NED
- NED pays US\$50,000 and to issue 1.5 million shares within first year
- NED to assume responsibility for all remaining payments to the Vendor, totalling US\$150,000
- AVK retains 1.5% Net Smelter Royalty

Proposed Exploration

- Structural and geological mapping and geochemistry the 3,700km long epithermal multiple reef system identified at Las Leñas, with follow-up IP geophysics, trenching and drilling
- Structural and geological mapping, comprehensive geochemistry and drilling at the Amphitheatre Prospect area at Amiches
- Reconnaissance exploration of the East Sancarron, La Ortiga and San Crispin Regional Exploration Project areas

Strategic Alliance (Alianza Minerals Pty Ltd) (Alianza)

- **Formalized Alianza project generation alliance with Independence Group Limited (IGO)**
- **Target definition by new Argentine geologist**
- **Twelve new exploration targets already identified**
- **A number of sites visited and assessed by representatives of Argentina Mining and IGO**

Share Purchase Plan (SPP)

- **SPP offered to eligible shareholders to subscribe for shares at A\$0.06 per share**
- **SPP raises A\$200,000**

OVERVIEW

Argentina Mining Limited (ASX: AVK) (Argentina Mining or the Company) is pleased to report the recommencement of the summer field season on the Company's Andean gold and base metal projects in San Juan Province, Argentina. All field work had been suspended during the winter months but ramped up with the onset of the spring – summer season.

With the joint-venture agreement for the **Tres Amigos Project** with Canadian Explorer New Destiny Mining Corporation (TSX.V: NED) completed and negotiations on the joint-venture of the **Cerro Blanco Project** with NED and their Due Diligence well advanced, the Company has been able to direct most of its attention towards evaluation of the high-grade epithermal Au-Ag potential in the **San Francisco** and **Amiches** Projects.

Accordingly, several reconnaissance campaigns have been undertaken at the Las Leñas Prospect at San Francisco, where a 3,700m long, 6m wide epithermal vein has been discovered and sampled. The most recent sampling of the vein complex yielded a continuous run of 12 x 3m long samples averaging **36m @ 1.23g/t Au & 4.85g/t Ag** from part of the reef complex.

In addition, an extensive porphyry zone has been discovered 2 kilometres northeast of the Las Leñas vein complex that sampling shows to be a large anomalous and probably shallow-buried hydrothermalized Au-Ag-Cu-Mo system.

Three short field trips were undertaken to reconnoitre Amiches, including one in October 2012 by directors of Argentina Mining and senior geological staff. Sampling from the most recent program yielded a bonanza result of **2m @ 18.91g/t Au & 389.51g/t Ag** from a 10m x 3m dacitic hydrothermal breccia outcrop.

With a successful round of sampling completed at San Francisco and Amiches Projects, Argentina Mining is now moving to take maximum advantage of the summer season to undertake extended sampling programs at both properties, focusing on evaluating their potential to host large-scale, high-grade gold-silver deposits.

The two properties lie on the extensions into Argentina of the famous El Indio Belt, one of the world's richest mineral provinces, estimated to contain tens of millions of ounces of precious metals gold-silver, and in which there is already a number of developing major resources and producing mines.

SAN FRANCISCO PROJECT

Las Leñas Epithermal Vein Prospect

Previous reconnaissance exploration by Argentina Mining (Quarterly Report March 2012) identified, among other targets, a 3,700 metre long NNW-trending epithermal quartz-goethite reef system at the Las Leñas Prospect in the south-eastern part of the large San Francisco Project. Two previous campaigns of rock-chip sampling by Argentina Mining along and around the reef have already shown the structure to be anomalous in gold and silver over a large part of its strike length.

On 16 January 2012, the Company announced to the ASX a highly encouraging number of gold and silver results from follow-up orientation sampling of the vein system in December 2012 to test responses and sampling methods in the central part of the reef, around 6602000N, from where elevated gold values were obtained previously, in preparation for testing the full extent of the reef in the First Quarter of 2013.

The best results of the December sampling program are as follows:

- **3m @ 2.53g/t Au & 10.2g/t Ag**
- **3m @ 2.52g/t Au & 7.8g/t Ag**
- **3m @ 1.54g/t Au & 5.3g/t Ag**
- **3m @ 1.36g/t Au & 9.7g/t Ag**
- **3m @ 1.19g/t Au & 3.0g/t Ag**
- **Including an additional contained 3m @ 1.11g/t Au & 9.5g/t Ag, the resulting 6 samples yield a continuous run of 18m @ 1.71g/t Au & 7.58 g/t Ag.**

The program took twelve samples in a continuous run along the strike of a 36m long section of the main central reef, in a 3,700 metre long, NNW-trending, epithermal quartz-goethite multiple reef system at the Las Leñas Prospect in the south-eastern part of the project. This structure has been previously described in detail in Argentina Mining's Quarterly Reports for March and September 2012.

Each of the 12 samples comprises a continuous rock-chip sample over a 3m distance, for a total along-strike distance of 36m. In the area sampled, the main reef is approximately 6m wide and is accompanied by 2 other parallel reef structures between 2m and 4m in width which have not yet been sampled. Total width of the combined reef complex is approximately 50m.

Elevated arsenic and mercury results confirm the epithermal affinities of the reef complex while the precious metal responses and overall dimensions of the complex provide encouragement for the potential of this part of the San Francisco Project to host one or a number of large-tonnage, high-grade epithermal gold or gold-silver resources.

Results to date justify the planned First Quarter 2013 program of continuous sampling over the full 3,700m strike of the exposed vein, with follow-up trenching, geophysics and drilling at selected points across the full 50m width of the multiple reef complex structure. Field observations indicate that the sampled surface may lie above the epithermal boiling zone and that drilling will be required to evaluate high grade and bonanza zones at the boiling zone at depth.

Further results are expected by the end of the first Quarter of 2013.

Las Leñas North Porphyry Prospect

During the September 2012 Quarter, five days were spent in detailed reconnaissance 2 kilometres north of the Las Leñas Vein Prospect, in the south-eastern part of the San Francisco Project, leading to the discovery of a large hydrothermalized porphyry-related Cu-Au-Mo system. Sampling in the area by previous explorers (Western Mining Corporation) returned results up to 2.8g/t gold.

While the results of Argentina Mining's first 12 geochemical rock-chip samples taken from the area results were anomalous (up to 0.09ppm Au by Atomic Absorption method), a large porphyry-related Cu-Au-Mo system was defined as a new exploration target area measuring approximately 1.4 x 1.6 kilometres in extent. This system exhibits the geological and hydrothermal characteristics of a large multi-phase porphyry stock. A closely-related sub-cropping flow-rhyolite dome complex indicates probable "cupola level mineralization" with the alteration characteristics of a typical "non-telescoped" porphyry Cu-Mo-Au system.

In this area, outcropping quartz-sulphide stock-works, veins, veinlets, lodes and hydrothermal breccias intrude domed and folded hydrothermalized country quartzites, sandstones, slates and lutite rocks at the "cupola" level. The system appears to characterize a "structural clear-flow porphyry dome" set in a quartz-sericite zone (quartz-illite-pyrite) with pervasive argillic (hypogene and supergene) alteration.

At least 14 potential targets have been defined ready for immediate follow-up sampling.

In the December 2012 Quarter, the site was revisited, with a further 18 samples being taken from the same target area as for the first 12 samples. The site includes very thick outcropping breccias approximately 10m wide, quartz veins and lodes. Sample results remain subdued but anomalous and include 0.1g/t Au with Ag-Hg-As-Cu-Mo-Zn-Pb-Mn paragenesis, including an average of 2.1g/t Ag, 172ppm Hg (to a maximum of 776ppm Hg) and 1165 ppm As.

It is interpreted that mineralization is of a younger style and located at depth, with sampling being undertaken at a relatively high level in a porphyry system, meaning that some shallow scout drilling will be required to resolve the provenance of the responses to date.

Further mapping and structural mapping is planned in early 2013.

AMICHES PROJECT

On 24 January 2013, the Company announced to the ASX a **bonanza- grade gold and silver** analytical result, with other anomalous element support, from the Company's December 2012 round of sampling at its Amiches epithermal gold-silver project in San Juan Province, Argentina

Among four separate rock-chip samples taken, an analytical result of **2m @ 18.91g/t gold & 389.51g/t silver** was obtained from Sample 7122, a 2m long continuous rock-chip sample across the strike of a 10m long by 3m wide outcrop of dacitic hydrothermal breccia at the "Amphitheatre", one of two currently-recognized prospects within the Amiches Project. Extensive alteration indicates that the zone of interest is of considerable area.

Previous sampling of the same outcrop in 2009 (U3O8 PLC) returned a result of **1m @ 4.9g/t Au & >100g/t Ag** while more extensive sampling of the Amphitheatre area in 1985 yielded a number of results above 1g/t Au, up to **12.4 g/t Au & 60 g/t Ag**.

The high precious metal grades, coupled with widespread Au-Ag anomalism and other field observations indicate that the sampled surface lies near the epithermal boiling zone, meaning that drilling will be required to test for high grades and bonanza zones at depth. The high mercury response of 16658ppb Hg confirms the epithermal origins.

The sampled breccia appears similar to those found at the nearby major deposits **Del Carmen, Jaguelito, Veladero and Pascua Lama, which** lie only 30, 40, 90 and 100 kilometres respectively from Amiches. All fall within the globally-recognized and highly-mineralized **El Indio Belt**, whose name is taken from the famous El Indio Mine, only 50km northwest of Amiches.

The Company is encouraged by the results from its recent field work and is preparing to take maximum advantage of the summer season to undertake extensive sampling to further understand the mineralized Amiches systems.

More results are expected by the end of the first Quarter of 2013.

TRES AMIGOS PROJECT

During the latter part of the September 2012 Quarter, negotiations were undertaken by Argentina Mining's wholly-owned Argentine subsidiary, Entropy Resources SA (**ERSA**), towards signing a Sub-Option and Assignment Agreement relating to ERSA's Tres Amigos Project, located 12 kilometres north-east of the township of Barreal in San Juan Province, Argentina.

The signing of the agreement was announced to the ASX on 11 October 2012. Under the terms of the agreement with Canadian-listed company New Destiny Mining Corporation (**TSX.V:NED**), ERSA would, upon receipt of an option payment of US\$50,000 cash and 1.5 million shares in NED, transfer and assign all its rights, title and interest under its agreement with the vendor of the property to NED, with ERSA retaining a 1.5% Net Smelter Royalty.

NED is to assume responsibility for the payment of all remaining payment instalments to the vendor of the property, totalling US\$150,000.

The Option Agreement enables Argentina Mining to direct its resources more efficiently towards evaluation of its other more advanced San Francisco, Amiches and Regional Exploration Projects, all of which are arrayed along the western flanks of the Calingasta Valley. Tres Amigos is the Company's only project which lies in a distinctly different geological domain, the Pre-Cordillera on the eastern side of the valley.

CERRO BLANCO PROJECT

On 5 October 2012, Argentina Mining announced to the ASX the key terms of a non-binding **Memorandum of Understanding (MOU)** signed by ERSA with NED relating to ERSA's Cerro Blanco Project, situated 36 kilometres south-west of the township of Barreal in the Calingasta Valley in San Juan Province, Argentina.

The parties agree that they will conduct negotiations for NED to be granted an exclusive option to purchase an undivided 60% interest in the seven exploration concessions in Argentina which

comprise the Cerro Blanco Project, enclosing an area of 12,820 hectares. The Property is subject to an 8.75% interest retained by the Vendor.

Under the terms of the MOU, NED has until 31 January 2013 to conduct due diligence investigations on the Property and to enter into a definitive agreement with the other parties. NED may extend the exclusivity period from 31 January 2013 until 1 March 2013 by paying Argentina Mining US\$50,000.

To exercise the Option to acquire a 60% interest in the Property, the MOU contemplates that NED must complete US\$2 million in drilling-based exploration on the Property, being US\$500,000 within 12 months of the Execution Date and a further US\$1.5 million within 24 months of the Execution Date.

In addition, NED will pay Argentina Mining US\$300,000 (US\$100,000 on signing the Formal Contract and two further instalments of US\$100,000 every six months thereafter) and, upon regulatory approval, issue Argentina Mining the number of common shares equal to 12.5% of the total issued shares of NED following completion of the necessary capital raising to fund the exercise of the Option.

NED has also agreed to assume all of Argentina Mining's remaining property payments to the Vendor, totalling US\$150,000 and payable in annual instalments of US\$50,000 each 31 December until 31 December 2014, the next instalment being due on 31 December 2012. NED will also assume responsibility for the payment to the Vendor of US\$200,000, upon a decision to commence a bankable feasibility study (BFS).

Upon NED acquiring a 60% interest in the Property, the parties will enter into a joint venture agreement to further explore and develop the Property, with each holding their respective joint venture interests (NED 60%, Argentina Mining 31.25%, and Vendor 8.75%).

Each party will contribute to the ongoing costs in proportion to their joint venture interests. Prior to or upon the decision to commence the BFS, if Argentina Mining elects not to contribute its share of joint venture costs, its 31.25% interest will convert to a 10% Free Carried Interest (FCI) until a decision is made to enter into commercial production.

If, prior to or upon the decision to commence the BFS, the Vendor elects not to contribute its share of joint venture costs, NED will have the first right of refusal to acquire the Vendor's 8.75% interest for US\$1 million, increasing NED's interest to 68.75%, or to 90% if Argentina Mining has elected to convert its interest to a 10% FCI. In addition, in the event of the buy-out of the Vendor's 8.75% interest, the Vendor is entitled to a 1.5% Net Smelter Royalty (NSR).

At Production Decision, Argentina Mining will be entitled to either:

- (i) a 31.25% participating joint venture interest where it has elected to contribute its share of all costs, or
- (ii) a 10% FCI if it has previously elected not to contribute its share of all costs. If a Production Decision is made and Argentina Mining holds a 10% FCI, then Argentina Mining may elect not to contribute towards mine development and construction costs, and its 10% interest will convert to a 1% NSR.

As at time of reporting, NED is still undertaking Diligence.

ALIANZA MINERALS PTY LTD

In the December 2012 Quarter, significant advances were made in meeting the project generation objectives. Alianza has now acquired the services of a highly-experienced Argentina-based geologist, fully-dedicated to the partnership, to lead a systematic project generation program jointly overseen by both IGO and Argentina Mining staff.

Regional geophysical data has been acquired over large areas of interest. Ten new exploration targets have already been identified by the geologist, initially focussing on porphyry copper and epithermal gold-silver deposits, with others being defined by independent interpretation of the regional geophysical data.

Argentina Mining and IGO representatives visited some of these targets during a field trip in late October-early November, 2012. Since then, a number of projects have been short-listed or visited. The selection and prioritization process is still evolving.

With an operational base in San Juan, Alianza, on behalf of Argentina Mining and IGO is well-placed to take advantage of new project opportunities as they arise. Under the terms of the Agreement, this activity does not preclude either party from pursuing exploration and mining opportunities which are introduced independently of the Alliance activities.

PLANNED EXPLORATION

Exploration planned, or already underway, for the first Quarter of 2013 includes:

- Structural and geological mapping and geochemistry, including continuous along-strike sampling, mapping, trenching, IP geophysics and drilling of the 3,700km long epithermal multiple reef system identified at Las Leñas.
- Structural and geological mapping, geochemical sampling and drilling at the Amphitheatre Prospect area at Amiches.
- Subject to access, follow-up reconnaissance exploration and access development at the East Sancarron, La Ortiga and San Crispin Regional Exploration Project areas.

CORPORATE

On 12 October 2012 the Company announced that in light of the current economic conditions, and to ensure that the funds raised under the Share Purchase Plan are used efficiently and effectively, the board of Argentina Mining drastically reduced its corporate overheads. This resulted in the Managing Director agreeing to reduce his salary by two thirds and the non-executive directors reducing their directors' fees by half. The cost cutting measures also involved the role of Executive Chairman being made redundant and consequently Mr Stephen Shedden agreed to resign as a director of the Company

On 24 October 2012 the Company closed its Share Purchase Plan which resulted in A\$200,000 being raised from the issue of 3,333,324 shares at \$0.06 each.

On 30 November 2012 the Company conducted its Annual General Meeting where all resolutions were carried unanimously by a show of hands.



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About Argentina Mining Limited

Argentina Mining Limited is exploring a suite of five gold and base metal projects in San Juan Province, Argentina. These projects range from the established porphyry copper-gold-molybdenum project at Cerro Blanco, epithermal vein gold and copper mineralization 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.

The Company's first 5 diamond core-holes drilled in two phases in 2011 at the Copper Hill Prospect at Cerro Blanco intersected broad zones of porphyry copper-gold-molybdenum mineralization which, supported by results from geophysical Ground IP-Res and Magnetics surveys, confirm the presence of a large mineralized porphyry sulphide and oxide system. Follow-up drilling is planned in 2013.

In late 2012, the Tres Amigos Projects was optioned to Canadian explorer New Destiny Mining Corp (TSX.V:NED).

A Memorandum of Understanding (MOU) has been signed between AVK and NED for the Cerro Blanco project. NED is currently undertaking due diligence on the Cerro Blanco project with the aim of signing a Heads of Agreement with AVK in the First Quarter of 2013.

Competent Person Statement

The information in this report relating to Exploration Results is based on information compiled by Mr Doug Bright, a Member of the Australasian Institute of Mining and Metallurgy and a Director of and geological consultant to Argentina Mining Limited. Mr Bright has sufficient experience relevant to the style of mineralization 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.