

## December 2009 Quarter Activities Report

### ABOUT ARC EXPLORATION LIMITED

Formed in 1983, Arc Exploration Limited (**ASX Code: ARX**) is an Australian listed gold company focused on exploration in Indonesia.

Two key strategic alliances in Indonesia are taking Arc Exploration closer to achieving its exploration growth objectives.

The Company has a 95% joint venture interest in two projects with PT Sumber Mineral Nusantara. These are the Trenggalek tenement located in East Java and the Bima tenement located in East Sumbawa. Both projects lie on the Sunda-Banda magmatic arc and are prospective for high-grade epithermal gold-silver vein deposits and porphyry copper-gold deposits.

In association with Anglo American Group, the Company is exploring for large porphyry copper/gold deposits in Papua.

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### Exploration - Indonesia

- Conversion of the Trenggalek Exploration KP to a Mining Business Licence ("IUP") was completed. Work continued in preparation for scout diamond drilling scheduled to commence early in 2010 to test multiple gold targets identified on the **Trenggalek Project** in East Java.
- Multi-element geochemical anomalies were highlighted from the assaying of soil samples collected from the Kowo prospect of **Bima Project** in East Sumbawa.
- Further work by Anglo American on the **Aisasjur Project** in West Papua in 2010 is pending the transfer of the KP's to IUP's.

### Corporate

- A Share Placement was completed in early October raising \$404,357.
- The Company also completed a non-renounceable pro-rata Rights Issue which raised \$3.1 million.
- The Company held a General Meeting in December 2009 at which shareholders approved resolutions associated with the capital raising strategy and the proposed issue of shares and options to the Drilling Contractor who will undertake a 5,000 metre scout diamond drilling in early 2010 at Trenggalek in East Java.
- The Company's current issued capital is structured as follows:

Ordinary fully paid shares: 344,619,314

ARXOA – Listed Options 31 Jan 2011 @ 3.6c: 153,427,899

ARXO – Listed Options 30 June 2012 @ 75c: 7,940,729

ARXAK – Unlisted Options 6 July 2012 @ 2.5c: 17,775,000

ARXAI – Unlisted Options 11 Dec 2014 @ 3.6c: 39,945,191

## PROJECT ACTIVITY – INDONESIA

ARX is exploring for gold, silver and associated base metal deposits on Java and elsewhere along Indonesia's highly prospective magmatic arcs and associated terranes. The primary exploration targets are high-grade, low-sulphidation epithermal gold-vein and porphyry-related copper-gold deposits.

Work during the quarter was focussed on preparations for the first phase of diamond drilling of multiple gold targets identified on the Trenggalek Project, which is planned to commence in early 2010.



### Java

#### **Trenggalek Project, East Java (ARX – 95%)**

The company operates a joint venture with P.T. Sumber Mineral Nusantara, which holds the Trenggalek Exploration KP license covering an area of 30,044 ha in the Southern Mountains of East Java. The Southern Mountains comprise an older segment of the Sunda-Banda magmatic arc (“Southern Mountains Arc”) and hosts numerous gold, silver, and base metal prospects, including Intrepid Mines’ Tujuh Bukit porphyry copper-gold project located about 250 km east of Trenggalek.

The conversion of the Trenggalek KP to a Mining Business Licence (“IUP”) with Exploration Status was completed on 2 November 2009, and is in accordance with the new Indonesian Mining Law promulgated on 12 January 2009.

The Company announced in the previous quarter that it had entered into a strategic alliance with a leading drilling contractor in Indonesia. As a result of this alliance the drilling contractor will undertake a 5,000 metre diamond drilling program on the Trenggalek Project at its own cost in exchange for shares and options in ARX. The Drilling Agreement is a fixed priced contract valued at US\$825,000 (approximately A\$900,000). Drilling will commence in early 2010.

The primary targets of the drilling program are outcropping epithermal gold-silver-bearing veins identified on the Sentul, Buluroto and Kojan prospects, the source of high-grade vein float found on the Jati prospect, and high-level hydrothermal breccias and silica cappings identified on the Dalangturu and Suruh prospects. Most of these targets lie in production forestry areas and the processing of an access permit to undertake the drilling activity is nearly completed.

Further mapping was conducted on the Sentul Prospect to better define the distribution and surface grades of the known vein targets in preparation for scout diamond drilling.

Exploration expenditure at Trenggalek during the quarter totalled \$92,000.

## West Nusa Tenggara

### **Bima Project – East Sumbawa (ARX – 95%)**

The company operates a joint-venture with P.T. Sumber Mineral Nusantara, which holds the Bima General Survey KP license covering an area of 24,980 ha in East Sumbawa, West Nusa Tenggara Province. The conversion of the Bima KP to a Mining Business Licence (“IUP”) with Exploration Status is progressing and is expected to be completed in early 2010.

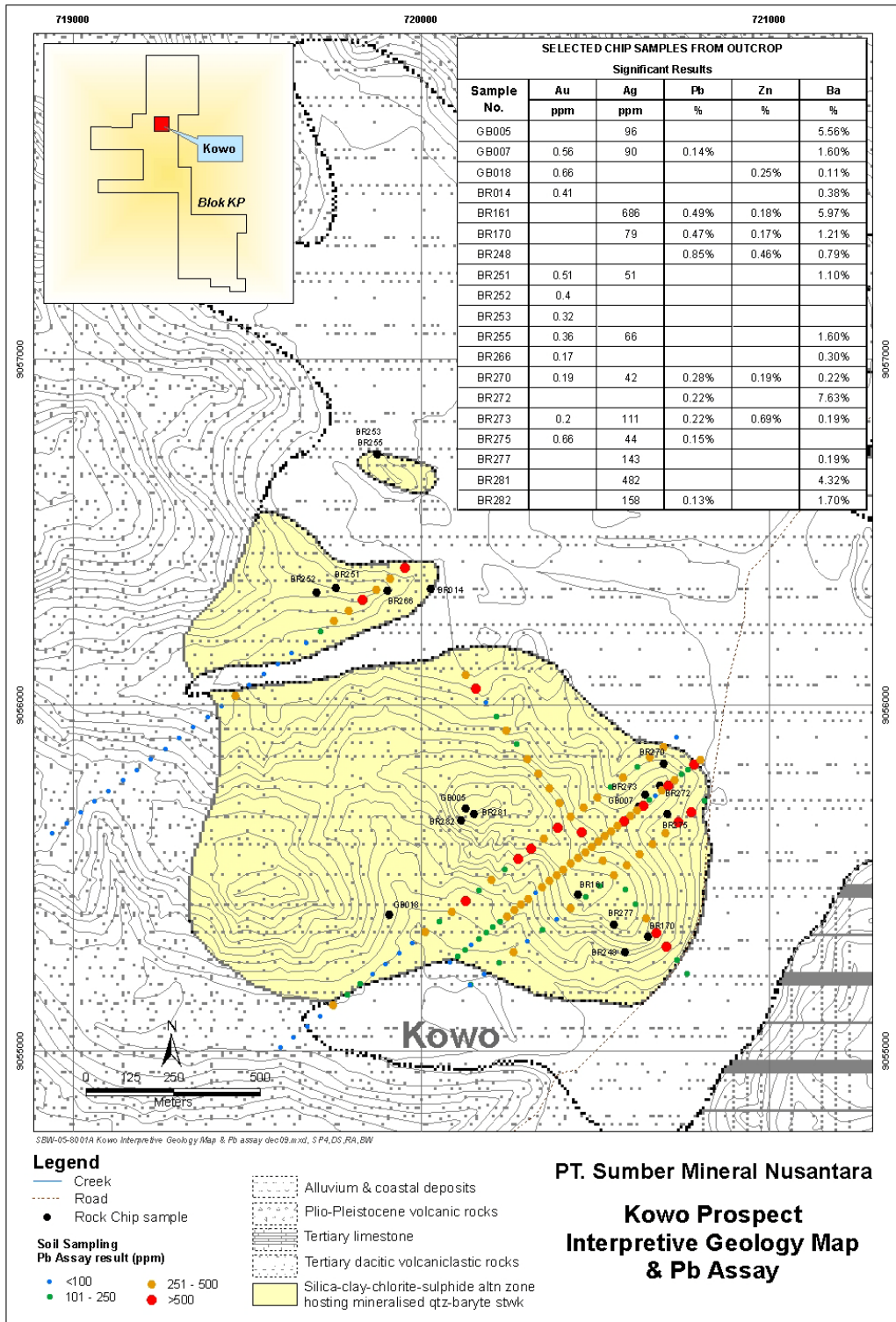


Sumbawa island comprises a segment of the Sunda-Banda magmatic arc. It is host to the giant Batu Hijau porphyry copper-gold deposit and several major copper-gold prospects located on the western side of the island. This highly prospective terrane extends into the Bima project area, which is underlain by Early Miocene to Pliocene intermediate-felsic volcanic and volcanoclastic rocks, fossiliferous limestone and high-level intrusions.

Assay results were received for 72 soil samples previously collected from the Kowo Prospect. Widespread low to moderate-level, base metal anomalism occurs in soil over a large zone (1.7km x 1.3km) of silica-clay-sulphide/limonite alteration and quartz-baryte-sulphide/limonite stockwork identified at this prospect. Results from the 72 samples averaged 68 ppm copper, 305 ppm lead, 383 ppm zinc and 2800 ppm barium. Gold results were generally low and contain some weak spot anomalies ranging from 0.026 ppm to 0.049 ppm gold. The results obtained to-date are encouraging and support the potential for a blind or covered porphyry copper-gold system in the project area. Infill soil sampling over the Kowo Prospect is planned.

An evaluation of the project area using remote-sensed imagery and ground verification will be undertaken.

Exploration expenditure at Bima during the quarter totalled \$3,000.



**Papua**

**Aisasjur Project - Anglo Strategic Alliance (ARX – 20%)**

The Company has a 20% interest in a strategic alliance with the Anglo American Group (Anglo) to explore for large porphyry copper-gold deposits in the Papua and West Papua provinces. The interest is fully funded by Anglo through to a development decision.

The ARX-Anglo strategic alliance contains three KP's covering a total area of about 610 square-kilometres in the Bird's Head of West Papua. These KP's form the Aisasjur Project and are located on the western end of the Medial Papua-New Guinea magmatic arc, which hosts the giant copper-gold deposits of Grasberg and Ertsberg

further east along the arc. Transfer of the Aisasjur KP's to Mining Business Licences ("IUP") with Exploration Status is in progress.

No field activity to report during the quarter. Further field work is pending the completion of the transfer of the KP's to IUP's.



*The information in this report that relates to Exploration Results is based on information compiled by Mr. Brad Wake, who is a member of the Australian Institute of Geoscientists. Mr. Wake 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. Wake is a full time employee of Arc Exploration Limited and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

This report is dated 22 January 2010. For further information please contact:

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