

#### **ASX ANNOUNCEMENT**

29 January 2018

# UPDATE ON TRENGGALEK PROJECT, INDONESIA DRILLING RESULTS FROM JERAMBAH PROSPECT

- 3 holes were drilled in the Jerambah Prospect for a total of 1,422.7m
- All holes hit porphyry style mineralisation, although at low level of mineralisation
- Area is interpreted to be the outer shell of porphyry style mineralisation but disrupted by phreatomagmatic eruption

Arc Exploration Limited (ASX Code: ARX) announces this update exploration activities on the Trenggalek Project located in East Java, Indonesia.

The Trenggalek Exploration IUP tenement is held by ARX's Indonesian partner, PT Sumber Mineral Nusantara ("SMN"). The tenement, covering an area of 29,969 ha or about 300 km², is valid until November 2018. The Company is in the process of renewing a forestry permit affecting 3,393 ha within the tenement area. PT Danusa Tambang Nusantara (Danusa), a subsidiary of one of the largest contract miners in Indonesia, is currently managing and funding exploration work at Trenggalek.

The Trenggalek Project lies in the prospective Southern Mountains Province of East Java, which contains the large Tumpangpitu porphyry copper-gold deposit in the Tujuh Bukit district.

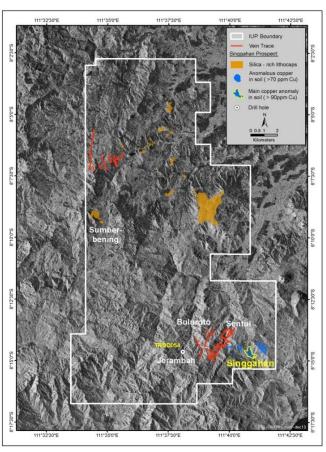


Figure 1. Trenggalek Exploration IUP

#### Jerambah Prospect

Exploration work has been concentrated at the Jerambah Prospect where the only one hole drilled previously (Figure 1) intersected extensive hydrothermal alteration and disseminated pyrite with traces of base metal mineralisation in a prospective rock package (see ARX announcement First Hole Completed On Porphyry Target At Trenggalek, Indonesia dated 12 December 2013). Subsequent petrological studies on selected core samples confirmed the presence of porphyry-associated alteration mineral assemblages, fragments of porphyry-style quartz veins, anhydrite veining, traces of disseminated chalcopyrite and molybdenite mineralisation and narrow structurally controlled zones of high-sulphidation epithermal mineralisation overprints. These petrological results are interpreted that the hole was drilled in a peripheral position to a potential mineralised porphyry system (see ARX announcement Update on Trenggalek Exploration Activities dated 9 April 2014).

Further large grid-based soil sampling programmed shows a new cluster of overlapping spotty copper-gold-molybdenum anomalies north of Jerambah Prospect thus highlighting the untested potential of this prospect (see ARX announcement Update On Trenggalek Exploration Activities dated 9 April 2014). In more recent months this area was re-mapped and re-sampled on a more detailed basis and a combined Induced Polarisation ("IP") and ground magnetic surveys were conducted (see ARX announcement Update on Trenggalek, Indonesia dated 19 October 2017).

The induced polarisation and ground magnetic results combined with re-interpretation of aeromagnetic data, spectral analyses, re-mapping and re-sampling of the area have identified three drill targets (Figure 2). Scout drilling commenced in late September to test these targets.

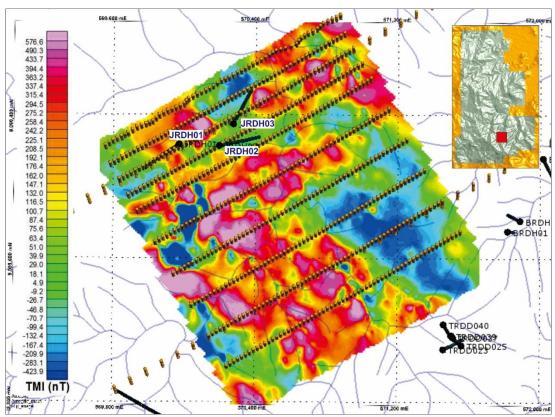


Figure 2 Drillhole locations with IP survey lines and groundmagnetic background

#### **Summary of Results:**

Hole JRDH01 – The hole is dominated by an intense quartz stockwork with associated pyrite from approximately 170m to 380m. These stockwork crosscut the host diorite within a phyllic alteration zone. There is however very little copper and gold mineralisation associated with this. Towards the end of the hole there is an increase copper grade (from 358-405m) however this was then destroyed by a sequence of breccia interpreted to be a result of phreato-magmatic eruption.



Figure 3. Intense quartz stockwork in Hole JRDH01

Hole JRDH02 – The hole has less intense quartz stockwork with associated pyrite from approximately 50m to 125m depth, cutting through mainly diorite within a phyllic-dominated alteration zone.

Hole JRDH03 – There is no significant result in this hole which is dominated by propylitic and argilic altered diorite.

#### Interpretation:

The result here is interpreted to be the barren, outer shell of porphyry or older porphyry. Similar mineralised porphyries in other parts of Sunda arc also have multiple phases of porphyry mineralisation and in these areas the often older diorite-dominated host is less mineralised compared to the younger tonalite-hosted porphyry.

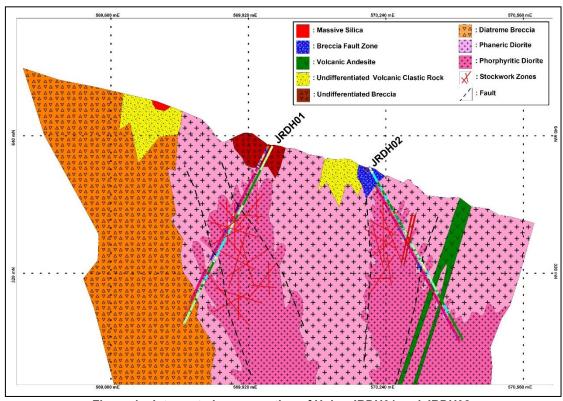


Figure 4 - Interpreted cross section of Holes JRDH01 and JRDH02.

For further information please contact:

Andrew J. Cooke Non-Executive Director Company Secretary

Email: andrewcooke@arx.net.au

Or visit the website: www.arcexploration.com.au

#### Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Dr Jeffrey Malaihollo, who is a Fellow of the Australian Institute of Mining and Metallurgy and Fellow of the Geological Society of London. Dr Malaihollo has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which is being undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Dr Malaihollo is a consultant to the Company and a director of the Company's subsidiary in Indonesia and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Table 1. TRENGGALEK PROJECT - Drill-hole Details

Hole ID	Collar Coords		Dip	Azimuth	Depth	
	mE	mN	mRL	deg	Deg	m
Jerambah Prospect						
JRDH01	569.980	9,090,196	621	-60	240	477.8
JRDH02	570,203	9,090,191	577	-60	070	464.9
JRDH03	570,281	9,090,311	588	-60	023	480.0

Table 2. TRENGGALEK PROJECT - Latest Copper Intercepts

Hole ID	From (m)	To (m)	Interval (m	) Cu ppm	Recovery
Jerambah Prospect					
JRDH01	261	271	10	149	100%
	289	292.5	3.5	246	100%
	358	405	47	111	100%
JRDH02	55	87	32	296	100%
	102	124	22	172	100%
JRDH03	NSR				
				NSR - denotes	No Significant Results

### JORC Code, 2012 Edition – Table 3 Report

#### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul> <li>The results relating to this announcement are from half-core samples taken from the following holes that were drilled on the Jerambah Prospect (JRDH01 to JRDH03 inclusive).</li> <li>The core is securely boxed and sealed in standard trays and transported to the company's secure core shed facility at Trenggalek for logging, splitting &amp; sampling.</li> <li>The core was marked up for sampling after logging by the project geologists and split for sampling using a petrol-driven diamond-blade core saw.</li> <li>Half-core samples were split and sampled</li> </ul>

Criteria	JORC Code explanation	Commentary
	• In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	from HQ-NQ core. Samples were generally taken over <1-2m intervals within predicted mineralised veins and at 2-4m intervals within alteration zones.  Individual sample weight varies from about 2-4kg depending on the core size. Samples were collected and each labelled with a unique number in individual calico bags.  Sampling was supervised by project geologists & geotechnicians under the supervision of a project manager.  Samples were dispatched by a road courier service in secured polybags to the internationally certified commercial laboratory, PT Intertek Utama Services in Jakarta.
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Diamond core drilling done by Indonesian contractor PT Indodril using two man-portable drill rigs to do triple-tube HQ and NQ coring.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recovery was measured directly off the triple tube splits after each drill run; core recovery from the holes reported in this announcement is greater than 98%.</li> <li>Core recovery was also measured over sample runs at the core shed and recorded against each assay result.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The entire drill core was previously logged by project geologists both qualitatively and quantitatively and recorded on drill logs and as summarised computer logs.</li> <li>Logging recorded rock types, alteration, mineralisation, physical rock properties &amp; geotechnical characteristics.</li> <li>There is a complete photographic record of the drill core.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Half-core samples were taken by splitting with a petrol-driven diamond-blade core saw at the company's storage shed in Trenggalek.</li> <li>The samples were packed and dispatched by road in secured boxes for delivery to the laboratory in Jakarta.</li> <li>At the laboratory, each sample was sorted, weighed (wet), oven dried at 105°C for 12-hours and weighed (dry).</li> <li>The entire sample was jaw crushed to 5mm size rock fragments and completely pulverised to a nominal 95% passing 75 micron or 200 mesh particle size. Gravel wash and air spray applied between each sample to avoid crosscontamination.</li> <li>Each sample was assayed for, Gold by FA51: 50g Fire Assay/Lead Collection with AAS Finish (0.005 ppm gold DL), and 51 multielement package by 4A/OM10 Four-acid mixed digest and ICP-OES &amp; MS volumetric finish.</li> <li>The sampling methodology, sample size &amp; preparation protocols are considered to meet the industry standard.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	The sample preparation & assaying techniques used are considered appropriate to the sample medium reported; assaying was done on a sub-split of the original sample material

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Intertek inserts and reports the results of its commercial gold standards (1:10/20), blanks, duplicate and replicate samples for Quality Control and reports these results accordingly.</li> <li>The Company also inserts its own sample duplicates and commercially purchased gold &amp; base metal standards on every 20th sample for Quality Control.</li> <li>Results fall within acceptable levels of accuracy and precision.</li> <li>No external check assaying has been done on the results reported herewith.</li> <li>The company adopts its own internal data verification, data entry &amp; data storage protocols. Primary data was documented on standardised paper-log templates and then this data was entered into Excel spreadsheets and validate prior to import into other software for analysis.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>There was no adjustment of the original assay data reported by Intertek.</li> <li>Drill-hole collars were surveyed using a Garmin "GPSMAP" 60 CSx instrument giving ± 3 m accuracy.</li> <li>Down-hole surveying (magnetic aziumuth, hole dip, magnetic susceptibility &amp; temperature) was measured by the drilling contractor in</li> </ul>
		conjunction with Danusa personnel using a Camteq Proshot downhole survey camera at initial 25m depth and then at 50 m intervals down the entire hole, the last reading at the end of the hole.  The drill hole collar coordinates are reported on the WGS 84 / UTM Zone 49S grid datum.  Magnetic azimuth is converted to UTM azimuth (+1.25 degrees) for plotting.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The drill holes reported vary from 50 to 100m apart between sections.</li> <li>There is insufficient data to establish geological continuity of the targets between respective drill sections.</li> <li>There is insufficient data to establish a mineral resource.</li> <li>Sample compositing was not applied to the results presented in this announcement.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	The drill holes are interpreted to have intersected their respective targets at high angle to strike and at moderate angle to the dip; achieving representative sampling across the mineralised body
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were collected at the core shed in labelled calico bags and were securely sealed in polybags and stored on site under the supervision of the project geologists and manager.</li> <li>Delivery of the samples was direct to Intertek and done by a commercial courier.</li> <li>No other security measures were undertaken.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No independent audits or reviews of the sampling techniques were undertaken.

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Trenggalek Exploration IUP ("Izin Usaha Pertambangan") is held by PT. Sumber Mineral Nusantara ("SMN"). Total area is 29,969 ha (about 300 square-km) valid until 2 November 2018.</li> <li>ARX holds a joint venture with SMN and has a 95% interest in the Trenggalek Project.</li> <li>On 18 November 2015 ARX announced that it had signed formal documentation with PT Danusa Tambang Nusantara to explore the Trenggalek IUP for gold and base metals. Under the agreement, Danusa may fund expenditure of up to US\$1,500,000 over 10 months for the First Stage of exploration and have the option to continue under a formalised joint venture to earn equity in the project.</li> <li>Jerambah prospect lie within the SE corner of the Trenggalek Exploration IUP. This prospect lies mainly within government forestry land having production &amp; partly protected status. SMN holds a valid <i>Pinjam-Pakai</i> Permit to work on the forestry land and negotiates access to other land with individual landowners.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>ARX held a joint venture with Anglo American for two years from late 2012 until late 2014, exploring for porphyry copper.</li> <li>The partnership with Anglo American provided the first opportunity to test the porphyry potential of the Trenggalek IUP and significantly expanded the project database, providing a solid platform on which to plan future exploration.</li> <li>ARX in joint venture with Anglo-American did scout drilling on the Jerambah prospect in 2013; results from which have been reported in previous ARX:ASX announcements, quarterly &amp; annual reports. A summary of the best drilling results is included in the next section – Geology.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Trenggalek is located in the Southern Mountains of East Java, which comprises an older segment of the highly prospective Sunda-Banda magmatic arc.</li> <li>The Southern Mountains is composed of Oligo-Miocene and younger volcanosedimentary rocks, limestone and intermediate-felsic igneous intrusions that are prospective for epithermal-style and porphyry-related gold-base metal deposits.</li> <li>The giant Tumpangpitu porphyry copper-gold-molybdenum and associated epithermal gold-silver deposit is located about 200 km from Trenggalek at the eastern end of the Southern Mountains. Tumpangpitu is believed to be hosted in rocks that are similar to those underlying the Trenggalek project area.</li> <li>Jerambah prospect are located in the SE corner of the IUP. This prospect is an extensive 2km by 1.5km silica-clay-pyrite alteration zone centred on igneous intrusions mapped at surface. The prospect coincides with discrete magnetic anomalies extending from a deeper seated stock-like body that were modelled from a 3D magnetics-inversion analysis of the airborne magnetics data.</li> <li>The Jerambah &amp; nearby Singgahan prospects were scout drilled in partnership with Anglo American in 2014; the IUP is considered have good potential for porphyry-related gold-base metal deposits.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The nearby Sentul and Buloroto prospects were drilled and the results reported in various ARX announcements. These two prospects are of epithermal gold mineralization style.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	See Tables 1 and 2.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Not relevant to the results in this announcement. Results here are reported against individual sample intervals.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The results reported in this announcement reflect individual samples intervals and no mineralised width is assumed or stated.</li> </ul>
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Diagrams are included with this announcement.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Representative reporting of the relevant results has been provided in this announcement.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Encouraging results were reported in the ARX March 2015 Qtly Rpt from cyanide bottle-roll leach testing done on samples of weathered to fresh gold-mineralised quartz vein material from the Sentul West Vein; gold extractions averaging 81% were returned.</li> <li>Suggesting that gold-bearing veins discovered at Sentul may be amenable to processing by conventional carbon-in-pulp processing methods if a significant gold resource is defined.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Further drilling on the Jerambah propsect is in consideration.