



30 April 2015

## QUARTERLY REPORT

### FOR QUARTER ENDED 31 March 2015

(ARK: code AHK)

#### OPERATIONAL HIGHLIGHTS FOR THE QUARTER

- Ark commenced a Mine Operation plan for Mt Porter
- Ark commenced a Mine Operation plan for Golden Slips
- MD liaised with the Northern Territory Mines Department updating them on the plan to move forward with Mining plan in Northern Territory
- Engaged IMO Perth to undertake metallurgical tests of the Mt Porter Ore and sent core to their lab (refer to appendix)
- Engaged consultant to undertake an optimisation review using whittle to confirm commerciality of Mt Porter resource
- Ark commenced preparing drilling program to further drill Golden Slips to increase size of resource

*AHK remains focused on its strategy to mine high grade gold and earn revenue as soon as is practicable. The board will continue its current efforts to locate and secure additional suitable projects in Northern Territory for that purpose.*

#### Golden Honcho Highlights so far:

- Intersections: 2m @ 21g/t; 2m @ 11.9g/t; 2m @ 10.5g/t; and 3m @7.5g/t, 5m @ 19.11g/t; 2m @ 13.29g/t; 2m@ 11.61g/t; 3m @ 10.96g/t and 3m @ 10.66 g/t with 9 intersections greater than 1m over 5g/t
- 260m Strike
- Drilling has shown the oxide zone to reach a vertical depth of between 40 and 50m.



### **Frances Creek Project Highlights:**

- Golden Slips prospect is only 1km NNE from Golden Honcho prospect with 5 other identified gold exposed reefs within a 2km zone, Golden Amigo, Golden Austerian, Golden Senorita, Golden Gulf and Golden Bandito. All within the Ark tenement
- Sub Vertical quartz veins and adjacent gold bearing alteration zones outcropping on top of steep ridge crests are amenable to simple, low cost, open pit mining
- Prospects 20km from a gold plant with current capacity to process oxide gold
- Over 2,400 metres of strike length at Frances Creek (comprising gold exposed reefs) with only 390 metres drilled to date
- Close to Ark's Mt Porter 34,200oz Au JORC Resource and Pine Creek township (This has not materially changed)

### **Immediate Plans:**

- Undertake further desk work to bring Golden Honcho prospect to JORC compliant mineral resource
- Complete study of historical data and geological information at Golden Slips – excellent gold intercepts previously identified including: 4m @ 47.54g/t; 2m @ 10.07g/t and 2m @9.92g/t
- Design and undertake an RC program for Golden Slips prospect to infill and extend the strike
- Continue discussions with local gold plants to toll treat ore from Mt. Porter and Frances Creek (Refer to Mt Porter resource below)



*Mt Porter*

The gold mineralisation at Mt. Porter was extensively explored by Pine Creek Goldfields Ltd (PCG), a subsidiary of Renison Goldfields Consolidated Ltd (RGC), between 1988 and 1994. Exploration by RGC/PCG at Mt. Porter included a total of 223 drill holes.

The final phase of PCG’s exploration at Mt. Porter (46 holes) concentrated on the “10400 Zone” (see cross section below for 10450 N) where earlier drilling had identified a coherent zone of relatively high grade (3-4 g/t Au) gold mineralisation at shallow depths, less than 70 metres from the surface.

PCG completed ore body modeling of Mt. Porter early in 1994. The estimated global resources (JORC 1999) were:

Cut-off 1.5 g/t Au	240,000-250,000 t @ 3.6-3.8 g/t Au
Cut-off 1.7 g/t Au	215,000 t @ 3.9 g/t Au
Cut-off 2.0 g/t Au	176,000 t @ 4.4 g/t Au.

Between 1995 and 1997, an additional 14 drill holes, some as deep as 810 metres (600 metres vertical), were completed by Homestake Gold of Australia Ltd (Homestake) under a farm-in arrangement with RGC. Homestake explored for major new zones of mineralisation over a kilometre long section of the Mt. Porter mineralised trend, mainly to the north of the 10400 Zone.

In 2003, Arafura Resources Ltd (Arafura) completed a program of 7 inclined core holes totalling 417.5 metres into the 10400 Zone to confirm the continuity of the highest grade gold mineralisation. These holes all intersected medium to high grade quartz veins outcropping on ridge crests which are amenable to simple low cost open pit mining. The results showed similar grades and widths to the surface sampling.

In early 2004, an updated resource estimate was completed for Arafura by Reseval Pty Ltd. Published Identified Resources for the Mt. Porter 10400 Zone deposit, calculated in compliance with the requirements of the JORC Code, now stand at:

	<b>Cut-off 0.5 g/t Au</b>		<b>Cut-off 1.7 g/t</b>
Indicated Resources	694,000 t @ 2.0 g/t Au	Indicated Resources	300,000 t @ 3.1 g/t Au
Inferred Resources	184,000 t @ 1.55 g/t Au	Inferred Resources	55,000 t @ 2.6 g/t Au
<b>TOTAL RESOURCES</b>	<b>878,000 t @ 1.9 g/t Au</b>	<b>TOTAL RESOURCES</b>	<b>355,000 t @ 3.0 g/t Au</b>



In 2005, a review by Arafura of the geological model for the Mount Porter 10400 Zone gold deposit resulted in the identification of two small targets (“NW” and “SE”) which had potential to host minor additional gold resources which could conceivably be extracted at the same time as planned open cut mining of the 10400 Zone resources. Drilling commenced in late-2006 to test these targets but the program was abandoned prematurely after drilling equipment was lost in the fourth hole of the planned 11 hole program. Importantly, the westernmost hole in this program intersected a previously unknown zone of gold mineralisation (“248 Zone”) west of and deeper than the Identified Resources in the 10400 Zone (Goulevitch, 2007).

In 2006, Arafura was granted a mineral lease (ML 23839) over the Mount Porter deposit and in early 2007, in accordance with the requirements of the *NT Environmental Assessment Act 1994*, completed a Public Environmental Report (PER) in respect of mining the existing gold resource and processing off-site (MBS Environmental, 2006, 2007). The PER was formally accepted by the NT Government on 19 March 2007 and Commonwealth Government approval of the proposed open-cut development, under the provisions of the *Environmental Protection and Biodiversity Conservation Act 1999*, was issued in June 2007.

***The Mt Porter Deposit features;***

- A JORC resource of 34,200 oz Au comprising 355,000t @ 3.0 g/t Au (Mt. Porter Resource)
- Resource expandable, with well defined targets
- Shallow and conducive to open cut mining
- Located near Pine Creek, and proximal to working gold mills
- Environmental approval issued by the Northern Territory and Australian Governments (2007)
- Agreement with the Northern Land Council for mining operations (2004)
- Granted Mining Lease (ML 23839)
- Cash Positive Mining Case

***Drilling Results, Intersection Charts and Location Maps***

Drilling results, intersection charts and location maps are as published by Ark in its last quarterly report.

The Mt Porter and Frances Creek Project Results as originally reported by Arafura Resources were first announced by Ark on 15 January 2013. Such information was prepared and first disclosed under the JORC Code 2004 by Arafura Resources in its announcement on 27 August 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.



### *Babinda*

No further exploration work has been undertaken on this tenement during the quarter under review.

### *Schedule of Tenements*

The Company's tenements as at the end of the quarter comprise:

Tenement	Location	Title Name	Interest
EL 7973	NSW	Babinda	100%
EL 6726	NSW	Nangerybone	100%
ML 22839	NT	Pine Creek	100%
EL 10137	NT	Frances Creek	Right to earn 70% or acquire 100% through option
EL 23237	NT	Pine Creek South	Right to earn 70% or acquire 100% through option
ELR116	NT	Mt Porter	Right to earn 70% or acquire 100% through option

There has been no change in the tenement schedule during the quarter under review.



## Appendix

### *Metallurgical testing Program*

#### **Stage 1 – Compositing and Assaying**

1. Compositing of client specified intervals in conjunction with IMO;
2. Head analysis of the composite inclusive of duplicate Au fire assay, ICP-OES, Sulphur, Sulphide, Total Carbon and Organic Carbon to tailor a specific flotation program relative to composite mineralogy;
3. Grind establishment testing to establish grinding requirements for flotation and leaching.

#### **Stage 2 – Flotation and Intensive Leach Optimisation**

1. Five flotation optimisation tests have been proposed for this phase of testwork. The aim of these tests is to increase gold recovery to the flotation concentrate whilst reducing mass recovery. Tests will vary reagents, grind size and flotation residence time;
2. A bulk flotation test will be conducted based on the optimal flotation regime to generate sufficient concentrate for leach testing;
3. Intensive leaching on two reground, laser sized, flotation concentrates to determine the sensitivity of gold recovery relative to grind size and reagent regime.

#### **Stage 3 – Conventional Cyanide Leaching**

1. Two conventional Cyanide leach tests have been proposed at two different grind sizes.



***The information in this announcement that relates to Exploration Results, has been compiled by Roger Jackson BSc, Grad Dip Fin Man, who is a Member of The Australasian Institute of Mining and Metallurgy and who has more than five years experience in the field of activity being reported on. Mr Jackson is a director of the Company. Mr Jackson 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 2012 Edition of 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jackson consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears. Resources and reserve calculations were provided by Runge Limited.***