# Mt. Porter South Drilling Update

**Sydney, 3 March 2017**: The Board of Ark Mines Ltd (**ASX: AHK**) is pleased to provide an update on the ongoing exploration activities on its Mt. Porter deposits in the Pine Creek region of the Northern Territory, Australia.

AHK has now completed the first phase of an RC program, comprising 27 holes (and 948m), targeting the Mt Porter South deposit. The purpose of this work is to supplement the Mt. Porter Central deposit.

The drill programme was designed in November 2016 after investigation of the historic drill data set indicated there may be some potential for near surface gold deposits within 200m along strike of the Mt. Porter pit design within ML23839, to both North and South.

Drilling results and analysis to date indicate the Mt. Porter South deposit is shallow and is likely to have a low strip ratio when mined. Furthermore, it is expected to be predominately oxide and should have higher recoveries.

The indications for the southern zone, based wholly on the historic reconnaissance scale drill grid at an intermittent and incomplete 50m by 50m spacing, was a good probability of mineralisation over a strike length of 700m with a width varying between 4 and 10m and a grade tenor in the range of 1.3 g/t Au.

For the northern zone were there remains insufficient data to predict grade tenor. A more difficult, extensive and deeper drill programme will be required to delineate viable portions of this structurally more complex zone.

AHK has determined the initial programme should concentrate on drilling the southern zone to afford a small resource sufficient to allow an MMP amendment and mining, with this oxide ore stream potentially available to offset pre-strip costs in the designed pit, now referred to as Mt. Porter Central.

Historic reports indicated that the original drilling had been spatially controlled using dGPS. This technology affords an accuracy of 2m in x and y, and 4m in z. On this basis a tight, non-fence based resource programme was designed to infill the known mineralisation bounds and allow 5m to 8m of spatial uncertainty.

The initial drill programme comprised 89 holes for 3,073m however, 9 holes for 360m were cancelled based on their extension of the mineralisation into ELR116, which would complicate regulatory approval of any subsequent mining. The remaining 80 holes constituted an expected 2,713m of drilling on 29 lines; each line having between 1 and 4 holes, averaging 3 holes per line with many pads to encompass 2 holes for a total of 62 pads. Designed depths ranged from 20 to 55m with average depth being 34m.

Deductions drawn from the drilling results so far:-

- Results have shown that ore is narrower than expected, with most lode sections falling between 2 to 4m in thickness. The grade tenor in many areas is, however, higher than expected, with many lode sections grading above 1.5 g/t Au rather than the expected 1.3g/t Au.

- The results give a strong indication AHK has a commercial, shallow oxide pit, mineable after Mt. Porter Central.

- Grade and tonnes will be concluded after the completion of the second phase of drilling.

- AHK is aiming to commence mining Mt. Porter Central in Q2 2017 and intends to lodge (and have approved) as soon as is practicable an MMP for South, so it can be mined directly after Central.

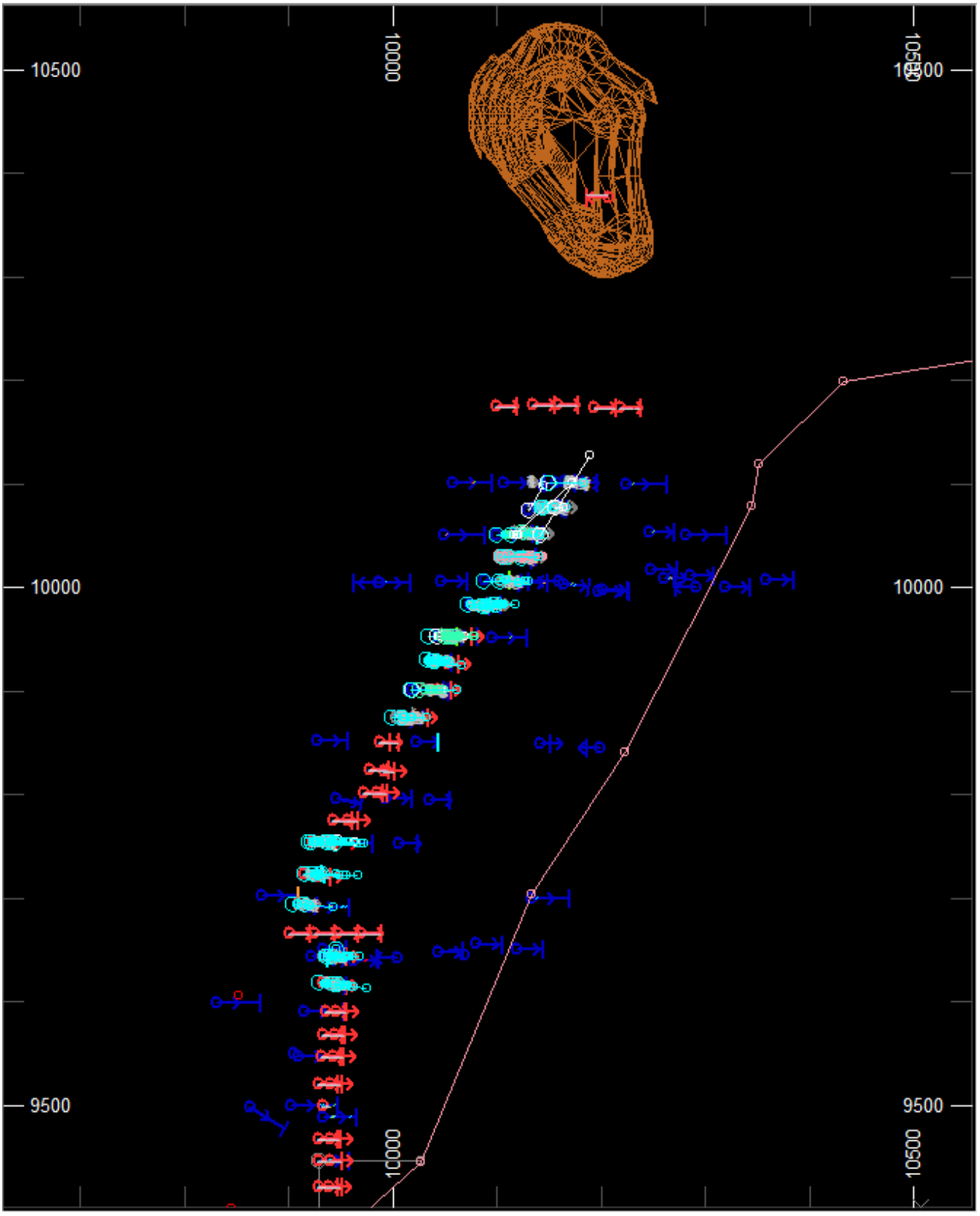
**Figure 1:** Drill rig on Mount Porter South

## Aggregated Stage 1 Significant Intercept Table

| BHID | Easting (m) | Northing (m) | Elevation (m) | Azimuth (degrees) | Dip (degrees) | EOH (m) | Method | From (m) | To (m) | Interval (m) | True Thickness (m) | Au Grade g/t Au |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MPRC267** | 10144.866 | 10076.095 | 507.977 | 89.341 | 60.3 | 32 | RC | 6 | 7 | 1 | 0.96 | 0.83 |
| **MPRC269** | 10134.011 | 10049.943 | 513.746 | 89.841 | 60.3 | 20 | RC | 3 | 4 | 1 | 0.97 | 1.04 |
| **MPRC270** | 10119.217 | 10049.981 | 514.397 | 89.341 | 60.5 | 32 | RC | 14 | 17 | 3 | 2.85 | 0.96 |
| *including* | | | | | | | | *14* | *16* | *2* | *1.91* | *1.42* |
| **MPRC271** | 10127.849 | 10028.146 | 516.368 | 90.341 | 60.5 | 23 | RC | 8 | 13 | 5 | 4.74 | 1.19 |
| *including* | | | | | | | | *10* | *13* | *3* | *2.81* | *1.48* |
| **MPRC272** | 10115.304 | 10028.136 | 517.059 | 90.341 | 60.0 | 35 | RC | 8 | 9 | 1 | 0.91 | 2.98 |
| **MPRC272** | 10115.304 | 10028.136 | 517.059 | 90.341 | 60.0 | 35 | RC | 17 | 22 | 5 | 4.88 | 2.13 |
| *including* | | | | | | | | *17* | *19* | *2* | *2.98* | *4.48* |
| **MPRC272** | 10115.304 | 10028.136 | 517.059 | 90.341 | 60.0 | 35 | RC | 31 | 32 | 1 | 0.90 | 0.73 |
| **MPRC273** | 10106.765 | 10028.109 | 517.951 | 89.841 | 78.0 | 35 | RC | 21 | 24 | 3 | 2.16 | 2.12 |
| **MPRC273** | 10106.765 | 10028.109 | 517.951 | 89.841 | 78.0 | 35 | RC | 33 | 34 | 1 | 0.80 | 0.68 |
| **MPRC274** | 10106.74 | 10005.19 | 517.513 | 90.841 | 61.0 | 32 | RC | 3 | 4 | 1 | 0.84 | 0.50 |
| **MPRC274** | 10106.74 | 10005.19 | 517.513 | 90.841 | 61.0 | 32 | RC | 28 | 31 | 3 | 3.00 | 0.66 |
| *including* | | | | | | | | *30* | *31* | 1 | *1.00* | *1.25* |
| **MPRC275** | 10091.73 | 9982.28 | 516.389 | 90.341 | 60.0 | 26 | RC | 12 | 17 | 5 | 4.34 | 4.13 |
| *including* | | | | | | | | *14* | *16* | 2 | *1.80* | *8.95* |
| **MPRC275** | 10091.73 | 9982.28 | 516.389 | 90.341 | 60.0 | 26 | RC | 20 | 21 | 1 | 0.92 | 2.33 |
| **MPRC275** | 10091.73 | 9982.28 | 516.389 | 90.341 | 60.0 | | RC | 23 | 25 | 2 | 1.64 | 1.30 |
| *including* | | | | | | | | *24* | *25* | 1 | *0.82* | *1.92* |
| **MPRC276** | 10075.803 | 9982.024 | 520.929 | 36 | 89.6 | 60.75 | RC | 3 | 4 | 1 | 0.82 | 0.75 |
| **MPRC276** | 10075.803 | 9982.024 | 520.929 | 36 | 89.6 | 60.75 | RC | 16 | 17 | 1 | 0.82 | 0.71 |
| **MPRC276** | 10075.803 | 9982.024 | 520.929 | 36 | 89.6 | 60.75 | RC | 18 | 19 | 1 | 0.82 | 0.96 |
| **MPRC276** | 10075.803 | 9982.024 | 520.929 | 36 | 89.6 | 60.75 | RC | 21 | 23 | 2 | 1.87 | 0.74 |
| **MPRC276** | 10075.803 | 9982.024 | 520.929 | 36 | 89.6 | 60.75 | RC | 31 | 34 | 3 | 2.77 | 0.98 |
| *including* | | | | | | | | 31 | 32 | 1 | 0.82 | 2.25 |
| **MPRC277** | 10074.775 | 9982.02 | 520.979 | 35 | 89.6 | 76.75 | RC | 26 | 27 | 1 | 0.82 | 1.84 |
| **MPRC279** | 10050.33 | 9952.412 | 528.994 | 90.341 | 60.0 | 38 | RC | 7 | 11 | 4 | 3.60 | 1.63 |
| *including* | | | | | | | | *8* | *10* | 2 | *1.80* | *2.54* |
| **MPRC279** | 10050.33 | 9952.412 | 528.994 | 90.341 | 60.0 | 38 | RC | 29 | 30 | 1 | 0.95 | 0.59 |
| **MPRC280** | 10049.47 | 9952.503 | 529.053 | 90.341 | 75.8 | 53 | RC | 45 | 47 | 2 | 1.48 | 2.64 |
| **MPRC280** | 10049.47 | 9952.503 | 529.053 | 90.341 | 75.8 | 53 | RC | 50 | 53 | 3 | 2.59 | 0.53 |
| **MPRC282** | 10039.62 | 9927.985 | 530.63 | 89.841 | 89.8 | 60 | RC | 16 | 17 | 1 | 0.96 | 0.50 |
| **MPRC283** | 10039.62 | 9927.985 | 530.63 | 89.841 | 80.5 | 40 | RC | 7 | 13 | 6 | 4.67 | 0.95 |
| *including* | | | | | | | | *8* | *9* | *1* | *0.78* | *1.73* |
| **MPRC283** | 10039.62 | 9927.985 | 530.63 | 89.841 | 80.5 | 40 | RC | 14 | 26 | 12 | 9.60 | 1.05 |
| **MPRC285** | 10031.79 | 9900.684 | 529.41 | 90.841 | 60.2 | 45 | RC | 13 | 19 | 6 | 5.38 | 1.31 |
| *including* | | | | | | | | *17* | *19* | 2 | *1.79* | *1.98* |
| **MPRC285** | 10031.79 | 9900.684 | 529.41 | 90.841 | 60.2 | 45 | RC | 40 | 42 | 2 | 0.90 | 0.54 |
| **MPRC287** | 10004.44 | 9873.003 | 529.921 | 90.841 | 60.2 | 50 | RC | 15 | 16 | 1 | 0.90 | 0.67 |
| **MPRC288** | 10004.44 | 9873.003 | 529.921 | 90.841 | 80.5 | 70 | RC | 38 | 40 | 2 | 0.90 | 0.59 |
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 1 | 5 | 4 | 3.97 | 1.49 |
| *including* | | | | | | | | *2* | *4* | *2* | *1.99* | *2.18* |
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 10 | 14 | 4 | 3.97 | 1.84 |
| *including* | | | | | | | *RC* | *11* | *13* | *2* | *1.99* | *3.01* |
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 21 | 22 | 1 | 0.99 | 0.69 |
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 25 | 29 | 4 | 3.92 | 0.87 |
| *including* | | | | | | | *RC* | *26* | *27* | *1* | *0.98* | *1.76* |

| BHID | Easting (m) | Northing (m) | Elevation (m) | Azimuth (degrees) | Dip (degrees) | EOH (m) | Method | From (m) | To (m) | Interval (m) | True Thickness (m) | Au Grade g/t Au |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 30 | 31 | 1 | 0.98 | 0.52 |
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 33 | 36 | 3 | 3.00 | 1.68 |
| *including* | | | | | | | *RC* | *33* | *35* | *2* | *2.00* | *2.24* |
| **MPRC301** | 9924.111 | 9753.532 | 529.49 | 90.841 | 60.3 | 41 | RC | 40 | 41 | 1 | 0.98 | 0.63 |
| **MPRC304** | 9915.898 | 9722.495 | 527.511 | 90.591 | 60.3 | 38 | RC | 27 | 31 | 4 | 3.79 | 0.62 |
| **MPRC304** | 9915.898 | 9722.495 | 527.511 | 90.591 | 60.3 | 38 | RC | 35 | 38 | 3 | 2.93 | 1.86 |
| **including** | | | | | | | | 35 | 36 | 1 | 0.98 | 2.02 |
| **MPRC306** | 9909.777 | 9692.674 | 525.844 | 89.841 | 60.3 | 35 | RC | 13 | 15 | 2 | 1.96 | 1.27 |
| **including** | | | | | | | | 13 | 14 | 1 | 0.98 | 1.99 |
| **MPRC313** | 9933.659 | 9643.258 | 517.973 | 89.841 | 60.3 | 40 | RC | 25 | 28 | 3 | 2.71 | 1.29 |
| **including** | | | | | | | | 25 | 27 | 2 | 1.81 | 1.62 |
| **MPRC313** | 9933.659 | 9643.258 | 517.973 | 89.841 | 60.3 | 40 | RC | 33 | 35 | 2 | 1.75 | 0.91 |
| **including** | | | | | | | | 33 | 34 | 1 | 0.88 | 1.24 |
| **MPRC315** | 9934.165 | 9616.902 | 516.679 | 89.841 | 60.3 | 41 | RC | 20 | 22 | 2 | 1.86 | 0.83 |
| **MPRC315** | 9934.165 | 9616.902 | 516.679 | 89.841 | 60.3 | 41 | RC | 26 | 29 | 3 | 2.73 | 1.28 |
| *including* | | | | | | | | *26* | *28* | *2* | *1.82* | *1.61* |

**Figure 2**: Mount Porter South drill programme. Red are planned holes. Dark blue are historic holes. Turquoise lines are lines including new drilling. The brown shape to the north is the Mount Porter Central design C pit shell. The pink line to the east is the Allamber Springs Granite.



**About Ark Mines**

AHK is a Sydney based company now readying itself for near term gold production, from assets in the Northern Territory. The company's aim is to establish itself as a medium level gold producer producing gold from tenements in the Northern Territory, developing prospective tenements in the Northern Territory and to acquire other prospective gold projects in Australia.

**FURTHER INFORMATION:**

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*The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves has been compiled by Roger Jackson BSc, Grad Dip Fin Man, Dip Ed, AICD, 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.*

# JORC Code, 2012 Edition – Table 1 – Mt Porter South Prospect – ML23839 – Reverse Circulation Drilling Results - JORC 2012

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sampling techniques* | • *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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *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.* | • Reverse Circulation (RC) drilling was carried out on the current program with drill cuttings collected every one metre.<br>• Cuttings were passed through a levelled cyclone and attached adjustable cone splitter in order to obtain a representative sample and a representative duplicate, each weighing approximately 3kg, and both collected in pre-numbered calico bags for each metre drilled.<br>• All primary samples were submitted to the laboratory, pulverised to produce a 50g charge for fire assay and then analysed for gold by AAS. Standards and duplicates were not inserted into the original sample sequence but instead industry standard certified Gannett standards for a range of values between 0.099 and 12.38 ppm Au were used with each laboratory job, included at the end of each sample sequence submitted, at a rate of 1 in 25.<br>• Primary samples were selected for pycnometer SG assay at a rate of 1:5 with selection based on logged rock type and oxidation state to ensure coverage of all potential domains.<br>• Each sample collected was noted qualitatively for moisture content with the vast majority of samples collected being essentially dry.<br>• Following receiving assay results, duplicate samples were selected from the retained duplicate set for the full range of the assay values noted. These duplicates were submitted for assay at a rate of 1 in 25. |
| *Drilling techniques* | • *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is* | • WJ Drilling was contracted to undertake RC drilling using a Gemco RC rig and auxiliary air compressor.<br>• Drilling was completed using a 4 inch (10.16cm) face sampling hammer.<br>• RC drilling was inclined (refer Table 1 for details). |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *oriented and if so, by what method, etc).* | |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • A visual estimate of percentage recovery by volume was made for each metre drilled, and periodically checked by weight using a spring balance.<br>• Each sample was qualitatively logged for moisture content and sample size consistency of the smaller calico bag sample continuously monitored while drilling, with periodic weighing of primary and duplicate sample using a spring balance.<br>• Cyclone and splitter were clean at 6m intervals or less if visual inspection indicated potential for contamination.<br>• Rig air was used to blow the hole dry and evacuate the sample path of particulates and sample residue at the commencement of each drill metre, prior to drilling and sampling that metre.<br>• This phase of drilling is follow-up to previous drilling carried out in 2004 utilising a smaller drilling rig and sample composite length, so it is problematic to make full comparisons from this phase of drilling. This problem of statistical representation will be addressed by completion of the current programme which will provide a statistically valid data set covering the entire mineralised zone at the current improved level of representation. |
| *Logging* | • *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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • All drill cuttings qualitatively logged and representative cuttings collected in numbered sequential chip trays on one metre intervals.<br>• Qualitative logging includes colour, lithology, description, weathering, alteration, key mineralogy, and mineralisation. Water table depths and key weathering marker horizons also recorded.<br>• Each hole has been logged by the metre over the entire interval drilled. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • See sampling section for a description of sampling and duplicate sampling techniques.<br>• Simultaneous duplicate samples were taken for each drill metre using the same levelled cone splitting method as primary samples.<br>• Duplicate sample results for a range of assay values at a rate of 1 in 25, indicate that original assay results are largely reproducible, with no obvious sample bias.<br>• Laboratory repeats were also performed at a rate of 1 in 25 and for all samples with an assay result above 0.5 ppm Au and show a high level of repeatability.<br>• The nature, quality and appropriateness of the sampling technique are considered adequate for the style of mineralisation.<br>• Sample sizes are considered appropriate for the very fine grained nature of the host lithologies and grain size of the gold mineralisation intersected. |
| *Quality of assay data and laboratory tests* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *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.*<br>• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • A certified and accredited laboratory, North Australian Laboratories (NAL) was used for the current assays and is the same laboratory used by the previous explorers.<br>• Samples were analysed utilising the industry standard fire assay technique using a 50g charge and AAS finish (0.01ppm detection limit). All assays over 0.5 ppm have been routinely re-assayed at least once and in some cases twice to establish acceptable levels of accuracy and precision.<br>• Internal certified QA/QC is carried out by NAL. In addition, industry standard Gannett standards for a range of values were used with each laboratory job, included at the end of each sample sequence, and blank flush material was ground between each sample, with these assayed at the beginning and end of each sample sequence. |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | • Primary data is verified on paper reports certified by the laboratory and validated against laboratory produced CSV files, and significant intersections initially calculated by direct reference to the drill logs produced in the field. The data is then entered into Excel spreadsheets for further processing and cross validation checks with results independently verified by alternative company personnel at the pre-modelling stage. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *Discuss any adjustment to assay data.* | • No adjustment has been made to the data except replacing L for gold assays <0.01ppm with a numerical value of 0.005; representing half the analytical detection limit.<br>• No averaging or exchange of data between replicates and duplicates has been implemented, and all calculation and reporting of assays is based on the primary assay data set.<br>• Calculation of assay grades of significant intersections is by length weighted average of primary assay grades within the intersection.<br>• True thickness is estimated by cross sectional interpretation of the logged data in CAD software, perpendicular to interpreted lode, and reported in parallel with the down hole interval length of the intersection. |
| *Location of data points* | • *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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • All co-ordinates are recorded in GDA94 MGA Zone 52 and converted to local mine grid for use in CAD software, via high precision survey based transform, by qualified and experiences surveyors.<br>• Drill hole pegs were set out by qualified and experienced surveyors using RTKdGPS for a precision of ± 20mm in x and y, and 20cm in z.<br>• Drill hole collars were picked up after drilling by qualified and experienced surveyors using RTKdGPS for a precision of ± 20mm in x and y, and 20cm in z.<br>• All drill holes underwent down hole survey for azimuth, dip and magnetic field strength through the rod string, utilising a Reflex digital down hole tool, positioned centrally within 4m of stainless steel rod to prevent magnetic interference. Holes of length less than 30m had survey shots taken at the end of hole. Holes longer then 30m had survey shots taken at end of hole and 20m intervals to a minimum depth of 20m. This is considered adequate for the depth, style and scope of mineralisation, and the short length of holes drilled.<br>• Historic drillholes were spatially controlled by dGPS for a spatial precision of ± 2m in x and y, and 4m in z. Where noted in the field, some of these collars were picked up and validated by RTKdGPS.<br>• Topographic control was provided at the commencement of this phase of drilling by generation of a ground digital terrain model measured and constructed by experienced and qualified surveyors, using RTKdGPS, over an area three times greater than the drill field and wholly encompassing the mineralisation and its surrounds. This topographic model represents industry best practice and when combines with individual collar surveys, is adequate for the style and scope of mineralisation. |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • Line spacings between drilling lines is 25m ±2m depending on topographic interference. This is considered adequate at this stage of project development and is in line with that used and statistically validated in other similar deposits in the area.<br>• Spacing between holes within a line varies from 12 to 25m with hole inclinations adjusted to target passes through the mineralised zone with a down dip separation of 10m, including existing passes from historic holes. This is considered to be high resolution sampling at the current stage of project development, and is in line with optimal spacings determined from statistical analysis of other similar deposits in the area.<br>• It is considered that the data spacing in the current drilling program will allow for the consideration of a JORC Mineral Resource to be calculated for this deposit.<br>• No sample compositing has been carried out for the current program. |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *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.* | • The drilling program has been designed to intersect a moderately west dipping (approx. 60°) structure with easterly directed holes at inclinations of either 60° to 78° and it is considered that this provides a consistent unbiased result in conjunction with intercept spacing on section.<br>• As the drilling orientation has been consistent and the lode orientation also predictable at this stage of exploration it is not considered that a sampling bias has been introduced. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sample security* | • *The measures taken to ensure sample security.* | • Sample intervals sent to the laboratory have been collected in individually numbered calico bags and then loaded into large plastic bags annotated with the sample sequence to exclude moisture. These bags have then been transported directly from the drill site to the NAL laboratory in Pine Creek by Ark Mines (AHK) contract personnel.<br>• Retained coarse residue and assay pulps are currently securely stored at the NAL laboratory in Pine Creek.<br>• Retained duplicates samples are stored away from the working area in a bag farm on site in large plastic bags. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • No audits or reviews undertaken at this stage of the exploration program. |

## 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* | • *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.*<br>• *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.* | • All results pertaining to the current program are from ML23839, held by Ark Mines Ltd (AHK). .<br>• ML23839 is located on PL 815/ NT Portion 1630 Mary River West Station.<br>• AHK has consulted with the pastoralist and the Traditional Owners (TOs) of ML23839, the Jaywon People on cultural heritage and the TOs have been kept informed of exploration activities carried out by AHK. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • The last phase of exploration work has been carried out by Arafura Resources (ARU) and comprised RC drilling between 2003 and 2006. Prior to this, extensive drilling was carried out by Renison Goldfields Consolidated (RGC) between 1988 and 1994, and some further drilling was carried out by Homestake Gold Australia between 1995 and 1997. Existing drilling prior to the current AHK programme totals approximately 19,626m and is referred to as historic drilling in this announcement. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • The drilling has targeted moderately west dipping, south south-westerly striking sulphidic quartz lodes and clay mica chlorite alteration zones occurring as semi-conformable saddles with a width of 2 to 10m, emplaced on the west limb of the tight to isoclinal Mt Porter Anticline near the contact between the middle Koolpin formation meta-pelites and an overlying Zamu Dolerite sill, as a result of the rheology contrast between these stratigraphic units and mesothermal genetic fluids enhanced by thermal pumping from the nearby Allamber Springs Granite. The deposit is a Palaeoproterozoic thermal aureole gold system with predominantly mesothermal input and deposition as saddle and shear lodes is controlled physically by structure and competence contrast, and influenced chemically by carbonate and ferruginous (BIF) horizons within the pelitic Koolpin sediment pile. |
| *Drill hole Information* | • *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:*<br>  ○ *easting and northing of the drill hole collar*<br>  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>  ○ *dip and azimuth of the hole*<br>  ○ *down hole length and interception depth*<br>  ○ *hole length.*<br>• *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* | • All drillhole information is retained in the AHK database and full drillhole details are shown in Table 1 accompanying this document.<br>• No material information is excluded. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *Person should clearly explain why this is the case.* | |
| *Data aggregation methods* | • *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.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • In reporting of mineralised intercepts quoted in this announcement, these are shown without top cuts, using standard length weighted averaging techniques with a maximum internal dilution of two metres, non- consecutive for mineralised intervals stated > 0.5 g/t gold.<br>• Higher grade results, generally over 1-2m lengths within longer lengths of lower grade results are indicated where considered significant (refer Tables 1).<br>• There are no metal equivalents reported. |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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').* | • Intervals quoted are downhole widths at the drillholes angles reported (60˚ to 78˚), to intersect moderately dipping (55˚ to 65˚) lode structures (refer Table 1).<br>• True thicknesses reported are estimated by cross sectional interpretation of the assays and logged data in Datamine RM CAD software, perpendicular to interpreted lode, and reported in parallel with the down hole interval length of the intersection.<br>• The geometry of the mineralisation relative to drillhole angle is approximately perpendicular to ±15˚, and drill hole orientations are reported in table 1. |
| *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.* | • See text figures showing drillhole locations. |
| *Balanced reporting* | • *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.* | • Table 1 accompanying this document also describes targeted sub-economic mineralised gold intercepts from the most recent drilling program. |
| *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.* | • Earlier drill, rock chip and soil sampling results have been incorporated into targeting the current drilling.<br>• From targeting shallow, easily mineable gold mineralisation the depth of partial oxidation has been observed down to 35-45m vertical depth.<br>• Water table is variable depending on topographic height but generally in the range of 20-35m downhole depth.<br>• Earlier surface rock chip and drill results averaged 1.3g/t gold |
| *Further work* | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Figure 2 shows the extent of completed and planned drilling in the current programme, and a further 2000m of drilling is planned for 2017.<br>• Desktop work to develop a modelled JORC resource is planned to follow completion of the current drill programme, as the precedent step to defining a reserve. |