# ABM Resources NL - Trial Mining Update: Geological and Grade Control Data Analysis

25.02.2014 | ABN Newswire

Perth, Australia (ABN Newswire) - ABM Resources NL (ASX:ABU) has compiled and assessed grade control data, geology, and reconciled tonnes and head-grade from trial mining at the Old Pirate high-grade gold deposit located in the Northern Territory.

**General update**

- Geological observations made during the trial are continuing to generate additional targets that will be followed up as the 2014 field season ramps up.

- Mill clean-out to recover gold in circuit was delayed due to very high rainfall during January and early February. However, contractors and staff have now been mobilised to site to commence this work.

**Analysis of Trial Mining**

Table 1. Breakdown of head-grade and tonnes processed per zone.

| Mining Zone | Avg.depth/ Max.depth of trial pit (m) | Tonnes excavated /processed | Head-grade (feed-grade) (g/t Au)* | Feed Oz | Ounces at 87% in-plant recovery |
|---|---|---|---|---|---|
| OP Central | 1.5 / 2.5 | 3470 | 18.4 | 2047 | 1781 |
| OP Eastside | 1.5 / 2.5 | 507 | 13.9 | 227 | 197 |
| OP South | 4 / 5 | 1205 | 21.7 | 842 | 732 |
| OP Western Limb | 3 / 4 | 2431 | 9.2 | 720 | 626 |
| Golden Hind | 4 / 5 | 2231 | 25.1 | 1798 | 1564 |
| Total | 3 / 5 | 9844 | 17.8 | 5634 | 4900 |

** Head-grade based on feed-conveyor sampling. Totals may vary due to rounding. Refer to December 2013 quarterly report for sampling technique for head-grade / tails grade and resulting calculations of in-plant recovery.*

**Reconciliation between grade control data, geology and head-grade**

For Stage 1 trial mining, the Company mined 13 pits to depths between 1.5 metres and 5 metres in five representative domains throughout the 1.8 kilometre long Old Pirate mineralised system (Figure 8 in link below). Approximately half of the total footprint of known mineralisation was selected for trial work. The five representative pit groupings (Table 1), and the results of the pit mapping, grade control sampling and head-grade to the pilot plant for the five areas are described below. The geology of the mineralised zones was generally as expected, but some local variations were encountered, and these are also detailed below.

**Old Pirate Central**

A total of 8 individual pits were extracted throughout the Old Pirate Central zone (Figures 1, 2 & 3 in link below). The Central zone consists of the previously interpreted main Old Pirate fold nose, the Eastern Limb of the Old Pirate anticline, the Heartland veins and the SE veins.

Drilling through the Old Pirate Central zone has previously generated wide intersections of mineralisation made up of multiple high-grade veins separated by lower grade sediments. Previously the area was interpreted as a relatively simple south plunging fold with the Eastern and Western Limbs converging in this

area. On excavation the local scale geology was revealed to have more complexity than this simple fold model. The Eastern Limb is observed as a series of interlinking quartz veins, with individual veins up to 3 metres wide within zones up to 10 metres wide, all hosted within sheared sandstone and shale. The shear zone is striking NNW-SSE, and whilst some shallow plunging folded veins were mapped, the previously interpreted main fold closure was not apparent.

The Eastern Limb veins (generally steeply east-dipping) continue along strike to the south beyond what was previously interpreted and are now projected to link to the Old Pirate South area, providing additional near-surface targets.

Grade control sampling to mineralised zone boundaries (weighted to sample width) averaged 23.9g/t gold with a maximum assay of 340g/t gold. A total of 3,470 tonnes of material was extracted and processed as part of the trial mining and achieved an overall head-grade of 18.4g/t gold.

The resource model for the Old Pirate Central area estimated an overall grade of 7.6g/t gold (refer release 04/02/2013). The higher head-grade (compared to resource estimate grade) was achieved partly by selectively mining quartz veins and thus limiting dilution. The Old Pirate Central Zone overall exceeded expectations with higher grade and more total ounces than expected and new potential extensions remain to be tested.

**Old Pirate South**

The Old Pirate South zone (Figure 4 in link below) represents a southerly continuation of the Eastside vein. A single pit approximately 60 metres long was extracted to an average depth of 4 metres and a maximum depth of 5 metres. Old Pirate South consists of a high-grade vein that is tightly folded at its southern end into a south-plunging anticline. The vein continues in the western wall of the pit and continues to the north-west. A second high-grade gold-bearing vein (not extracted but with coarse visible gold observed) occurs above the Old Pirate South fold nose and is observed in the southern pit wall and also continues to outcrop to the north-west. The fold nose is plunging south at approximately 18 degrees.

Grade control sampling to mineralised zone boundaries (87 samples) (weighted to sample width) averaged 69.4g/t gold with a maximum value of 1,490g/t gold. With dilution, a total of 1,205 tonnes of material at an average head-grade of 21.7g/t gold was extracted from Old Pirate South. The resource estimation work included Old Pirate South within the Eastside domain (resource estimation grade of 10.4g/t gold Eastside to OP South domain). Overall Old Pirate South exceeded expectation with more consistent high grades than anticipated. The shallow plunging fold nose generates additional near-surface drill targets and the link back to the Central area along a broad shear zone remains to be adequately evaluated.

**Old Pirate Eastside**

The Old Pirate Eastside vein consists of a single north-south striking vein with occasional local variations in width from 20 centimetres to 1 metre (Figure 5). A total of 4 pits were excavated to an average depth of 1.5 metres and in some areas an extra cut to 2.5 metres was taken. Grade control sampling to mineralised zone boundaries (32 samples) averaged 62.4g/t gold with a maximum value of 472g/t gold. A total of 507 tonnes of material was processed with an average head-grade of 13.9g/t (versus an overall resource estimation grade of 10.4g/t (refer release 04/02/2013)). The higher grade returned (compared to the resource estimation) was largely due to dilution management and the Eastside vein generally performed in line with expectations.

**Old Pirate Western Limb**

The Old Pirate Western Limb consists of a single vein hosted in a shale unit, striking NNW-SSE and steeply dipping to the west over a length of 600 metres. Approximately 300 metres of the Western Limb was taken in trial mining in a pit averaging 3 metres depth (Figure 6 in link below). The main vein width is generally 20 centimetres locally increasing to more than 1 metre.

Previous drilling at the Western Limb revealed mineralised zones of 3 to 5 metres true width expanding to greater than 10 metres at depth, which is wider than the main vein observed at surface.

At the base of the second bench (2.5 metres below surface) footwall splay quartz veins striking northsouth were observed and these may account for the wider mineralised zones observed in drilling, however, the overall impact of splay structures on total contained gold is yet to be established. Grade control sampling to mineralised zone boundaries (222 samples) from the Western Limb averaged 42.9g/t gold with a maximum

assay of 613g/t gold. A total of 2,431 tonnes were processed from a mining width of between 0.6m and 1.0m (diluting the narrow vein but still limiting dilution to less than assumed in the resource estimation modelling) with a head-grade of 9.2g/t gold (versus a resource estimation grade of 7.12g/t gold). Overall the Western Limb performed in line with previous surface sampling and modelling for the main vein and the overall continuity and regularity of high grades was above expectations.

Golden Hind is located approximately 800 metres south of the main Old Pirate zone. Golden Hind is characterised by plentiful coarse and fine visible gold hosted in quartz veins and sheared sediments.

On a regional scale Golden Hind is on the western limb of the regional Old Pirate anticline and overall dips to the west. However, several east-dipping gold-bearing veins / shears were also observed during mining.

Previous drilling had indicated high-grade mineralised widths to greater than 10 metres. For the first two benches the Company prioritised dilution management with extraction of the quartz veins. After the first two benches, the level of oxidation in the shear zone decreased and the shear zone itself became much more apparent. It was readily observed, during excavation on the third and fourth benches (>2.5 metres), that the sheared shale material either side of the quartz also contained plentiful visible gold, strongly supported by assay results, and the ability to mine to the mineralised contacts improved. At surface and as previously defined by drilling the high-grade gold-bearing material covers a strike length of >80 metres, however, on mining the mineralised strike length observed is 50 to 60 metres. The north-western end of the trial pit generally had low-grade shown in grade control sampling, however, ~10 metres beneath this north-western end is the Company's highest grade intersection to date from drilling (15m averaging 118g/t gold (refer release 02/10/2012)).

Several shallow south-dipping shears and numerous narrow, shallow dipping veins in the walls of the Golden Hind pit, as well as the steep veins and shears seen elsewhere were also observed. These observations, along with other geological features seen in the trial mining pit, indicate Golden Hind will continue to increase in strike as Stage 2 mining progresses and there is a possibility of multiple plunging shoots or stacked zones.

Grade control sampling to mineralised zone boundaries (234 samples) averaged 29.9g/t gold with a peak value of 518g/t gold. A total of 2,231 tonnes of material was processed from Golden Hind and achieved an average head-grade of 25.1g/t gold. This grade is higher than the resource estimation grade (16.35g/t gold (refer release 04/02/2013)). The tonnage extracted was overall less than anticipated due to both not recognising, through oxidation, the sheared material as being gold-bearing until part way through trial mining, and the slightly shorter length of the overall system compared to drilling. The presence of gold in shear zones splaying off to both the east and west, east-dipping structures (along with west-dipping structures) and potential repeats of mineralised zones at depth provide extensional targets at Golden Hind.

**General comments**

ABM has run preliminary model checks involving the variations to the observed geology and distribution of mineralisation in the top 3 to 5 metres. Overall the global resource estimation (1.88Mt averaging 10.1g/t gold (top cut)) issued in 2012 remains a valid global resource estimation, and the local variations are within the bounds expected for a structurally controlled quartz vein and coarse gold system. This check work and analysis is on-going and the Company may not issue an updated resource estimation until further work, including possible progression to Stage 2 mining is carried out.

As a key part of the trial mining test, the Company was able to minimise dilution and mine to geological boundaries and hence anticipates that it will be able to mine at higher grade and lower tonnes than indicated by the resource model. Due to 1 metre compositing and evenly spaced sampling, the existing resource model has up to 2 metres inherent dilution (e.g >900% on a 20cm vein) built in around narrow high-grade veins. A summary of grade control data and effective mine dilution calculation is shown in Appendix 1. In addition the Company is currently planning shallow follow up drilling on extensional and infill target areas to be carried out in conjunction with sterilisation drilling planned for Stage 2 infrastructure areas.

**Mill Clean-Out Update**

The area around the Old Pirate project received over 500mm of rain from mid-January to mid- February which made access roads impassable. Conditions have improved considerably in recent days and as a result the Company has mobilised the contractors and staff to site to commence this work. Further updates will be made as information is compiled.

To view all tables and figures, please visit:
http://media.abnnewswire.net/media/en/docs/76679-ASX-ABU-668713.pdf

**About ABM Resources NL:**

ABM Resources (ASX:ABU) is an exploration company developing several gold discoveries in the Central Desert region of the Northern Territory of Australia. The Company has a multi-tiered approach to exploration and development with a combination of high grade potentially short-term production scenarios such as Old Pirate and the Golden Hind, large scale discoveries such as Buccaneer, and regional exploration discoveries such as the Kroda Gold Project. In addition, ABM Resources is committed to regional exploration programs throughout its extensive holdings.

**Contact:**

ABM Resources NL
T: +61-8-9423-9777
F: +61-8-9423-9733
WWW: www.abmresources.com.au