



ASX Announcement 19th August 2010

Second High Grade Zone intersected at Mt Clement extends gold mineralisation further

About Artemis Resources

Artemis Resources is an ASX-listed mineral exploration company with a focus on gold:

Key Projects

Gold

Mt Clement (WA)
Yandal (WA)

Rare Metals

Yangibana (WA)
Buchanan's Creek (QLD)

Uranium

Mundong Well (WA)
TAG II/IV (West Africa)

Artemis' corporate strategy is to maximise shareholder returns through a combination of exploration success and quality project acquisition.

The company's focus on gold is viewed as an important growth strategy for the company.

Australian Securities Exchange

Code: ARV
Options: ARVOB

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- **New gold, silver, copper zone encountered 95m east of the first gold zone**
- **13.0m @ 1.46g/t Au** including one metre assays of 4.86g/t, 3.21g/t, 2.36g/t, 2.21g/t and 2.07g/t gold
- **13.0m @ 67.59g/t silver** (2.17 ounces per tonne)
- **13.0m @ 0.24% copper**
- **These results open up another undrilled mineralised target**

Australian resources company, Artemis Resources (**ASX: ARV**) is pleased to announce that a recent drill hole has intersected a second high grade gold, silver, copper zone 95m east of its first high grade zone at Mt Clement in Western Australia.

The best results from this drill hole (ARMCRC003) include;

- 13.0m @ 1.46g/t gold, 67.59g/t silver and 0.24% copper between 92m and 105m downhole depth.

Drill hole number ARMCRC003 was aimed at testing the second of 5 high grade zones identified by Artemis and results confirm that the Company's in-house mineralisation modelling is correct.



The third drill hole in Artemis' current drilling program (ARMCRC003) at Mt Clement has intersected gold, silver and copper in an area previously untested by drilling with mineralisation remaining open in all directions. The hole was designed to test a hypothetical gold zone lying beneath flat-lying, near-surface, stratabound gold lodes. Hole ARMCRC003 was drilled beneath the near-surface gold horizon to intersect what was modelled to be a steep-dipping high grade lode. The stratabound lodes are typically gold-bearing but lack silver and copper. Figure 1 below shows a cross section through Mt Clement at 408735E and clearly illustrates the strength of mineralisation continuing at depth.

The second drill hole at Mt Clement (ARMCRC002) was drilled deeper beneath the first drill hole (ARMCRC001) in the current drilling program but assay results for this hole have not yet been finalised.

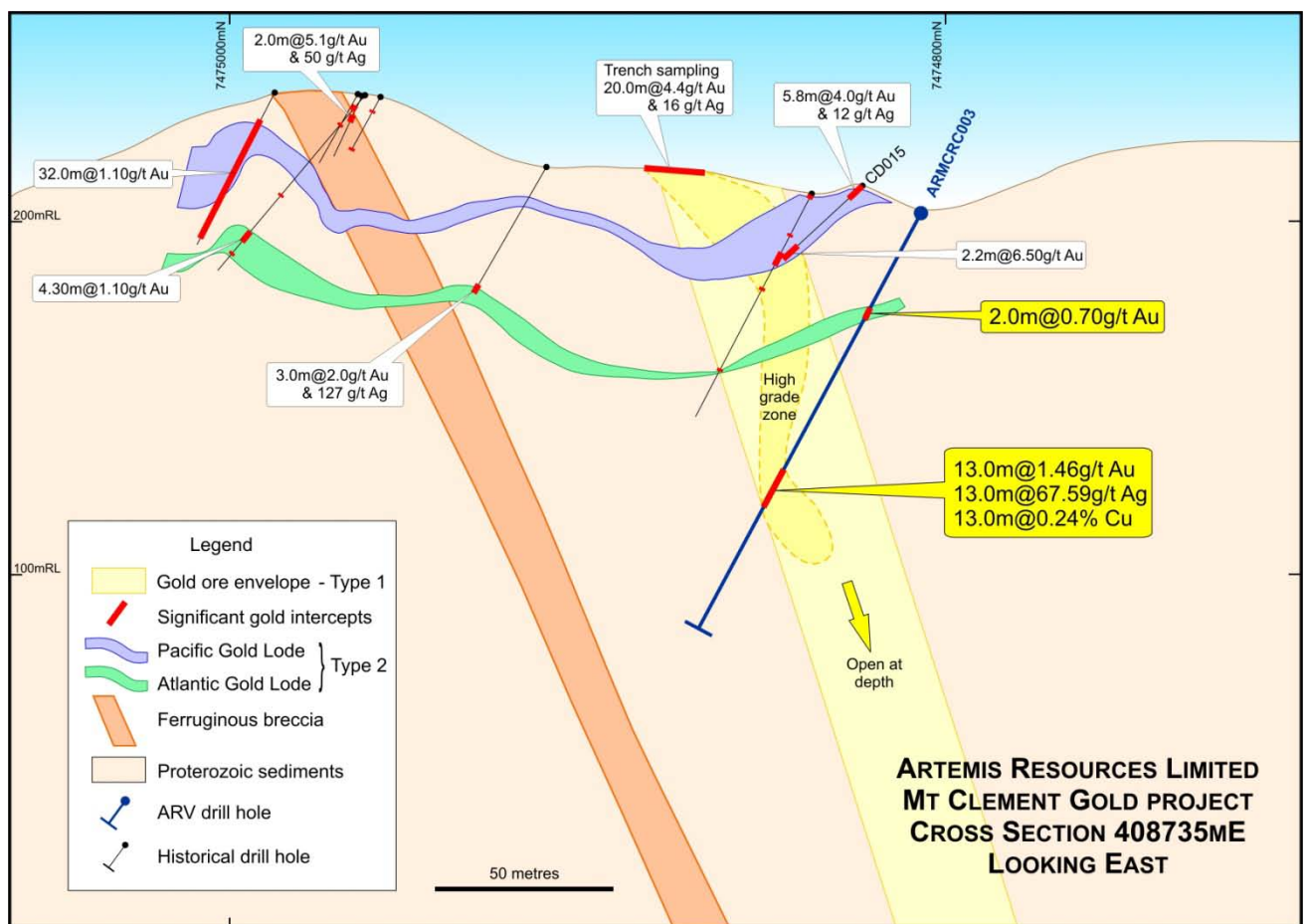


Figure 1 - A schematic cross section through the Mt Clement Gold Project. The third Artemis hole (ARMCRC003) has successfully extended high grade mineralisation at depth with mineralisation remaining open in all directions.

The cross section (Figure 1) shows the potential for increased gold ounces based on the newly-identified high grade zone extending at depth. Hole ARMCRC003 successfully intersected a broad, strongly mineralised gold, silver and copper lode from 92m down hole and includes high grade gold (1m @ 4.86g/t and 1m @ 3.21g/t Au) within this interval. This is the first time this lode has been intersected at depth (at approximately 85m from surface) and opens up a large untested target. The high silver and copper content signals that this is likely to represent a "Type 1" style of mineralisation which is a steep-dipping fault with gold, copper and silver mineralisation



open at depth. Without taking potential recoveries into consideration, the high silver content intersected in drill hole number ARMCRC003 may add an additional 1g/t gold equivalent value for the 13m interval.

This intersection proves that a second gold mineralised lode exists 95m further east of the first high grade zone announced to the ASX on 9th August 2010. The presence of this second lode at depth provides Artemis with quality exploration targets for further drilling and significant potential for increased ounces of gold and silver. This second mineralised zone was intersected on target as modelled and extends the gold mineralisation 61m deeper than the previous intersection drilled by BHP in 1979 (hole number CD015 which intersected 2.20m @ 6.50g/t gold). Hole ARMCRC002 also lies 85m beneath a trench dug by BHP in 1979 which returned 20m @ 4.4g/t gold and 16g/t silver (see Figure 1).

Drilling is aimed at testing high grade gold mineralisation at depth and lower grade stratabound gold mineralisation identified from a 3-dimensional reappraisal of historical drilling. Results will be announced as they are received from the laboratory.

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ADDITIONAL INFORMATION IS AVAILABLE ON FOLLOWING PAGES

ADDITIONAL INFORMATION



Location Map of the Mt Clement Gold Project in Western Australia



ABOUT ARTEMIS RESOURCES

Artemis Resources (**ASX: ARV**) is a diversified resources exploration company with a focus on its prospective Mount Clement and Yandal gold projects in Western Australia. The Company also has exposure to rare earths through its Yangibana (Western Australia) and Buchanan's Creek (Queensland) projects and Uranium through its Mundong Well and TAG II/IV projects in Western Australia and West Africa. Its projects were targeted because of their quality, exploration potential and close proximity to existing deposits or producing mines.

The Mount Clement Gold project comprises three mining leases and two exploration licenses over 14.5km² in the Ashburton area of Western Australia, approximately 35km from the operating Paulsens Gold mine owned by ASX-Listed Northern Star Resources Limited (**ASX: NST**). Northern Star Resources owns a 20% interest in the 3 MLs at Mt. Clement.

Hole Number	From (m)	To (m)	Interval (m)	Gold (g/t)	Silver (g/t)	Copper (%)
ARMCRC002	Analysis in progress - no results received from the laboratory yet					
ARMCRC003	92.00	93.00	1.00	4.86	468	1.54
ARMCRC003	93.00	94.00	1.00	1.89	94.7	0.39
ARMCRC003	94.00	95.00	1.00	0.11	8.1	0.04
ARMCRC003	95.00	96.00	1.00	0.07	5.7	0.02
ARMCRC003	96.00	97.00	1.00	0.24	5.6	0.03
ARMCRC003	97.00	98.00	1.00	0.07	18.2	0.07
ARMCRC003	98.00	99.00	1.00	3.21	71.50	0.16
ARMCRC003	99.00	100.00	1.00	0.50	10.40	0.03
ARMCRC003	100.00	101.00	1.00	2.07	134.00	0.50
ARMCRC003	101.00	102.00	1.00	0.41	14.90	0.05
ARMCRC003	102.00	103.00	1.00	0.98	23.90	0.11
ARMCRC003	103.00	104.00	1.00	2.36	6.50	0.04
ARMCRC003	104.00	105.00	1.00	2.21	17.10	0.08

***Detail of best drilling results from hole ARMCRC003
Mt Clement – August 2010.***

Hole Number	North MGA94	East MGA94	RL (m)	Dip (deg°)	Azimuth (deg°)	Total Depth (m)
ARMCRC001	7474887	408680	207.55	-65	001	136
ARMCRC002	7474815	408655	204.61	-58	007	256
ARMCRC003	7474805	408760	205	-55	320	148

Drilling statistics for August 2010 RC drilling at Mt Clement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr David W. Price, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Price 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 Price, who is an officer of the Company, consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.