

## ASX ANNOUNCEMENT

11 October 2011

ASX Code: DTM

### Investment Data

Shares on issue	140.1m
Listed options	15.4m
Unlisted options	5m

### Shareholders

Top 20 Hold **38.8%**

### Key Projects / Metals

- Unicorn Porphyry Mo-Cu-Ag
- Morgan Porphyry Mo-Ag-Au
- Mountain View Lode – Au

**Mo** – Molybdenum  
**Cu** – Copper  
**Au** – Gold  
**Ag** – Silver

### Board & Management

#### Chairman

Mr Chris Bain

#### Managing Director

Mr Lindsay Ward

#### Executive Director

Mr Dean Turnbull  
Manager – Exploration

#### Non-Executive Directors

Mr Stephen Poke  
Mr Richard Udovenya

### Contact Details

Dart Mining NL  
Level 2  
395 Collins Street  
Melbourne VIC 3000  
Australia

#### Mr Lindsay Ward

Phone: +61 (0)3 9621 1299

Email: [lward@dartmining.com.au](mailto:lward@dartmining.com.au)

Visit our webpage:

[www.dartmining.com.au](http://www.dartmining.com.au)

## MAIDEN UNICORN JORC RESOURCE – INDICATED + INFERRED 105M TONNES AT 0.07% MOLYBDENUM EQUIVALENT

- **Maiden 105M tonne Indicated + Inferred Resource at 0.07% Molybdenum equivalent (refer Table 1) reported in accordance to the JORC Code for Unicorn Deposit**
- **Initial 29M tonne Indicated Resource at 0.09% molybdenum equivalent from surface to a depth of 250m – very low strip ratio**
- **Deposit remains open at depth below 450m**
- **Available renewable power, water & workforce/supportive community**
- **Unicorn project in north east Victoria moves a step closer in establishing Australia's newest mining district**

Dart Mining NL (Dart Mining) in conjunction with AMC Consultants Pty Ltd (AMC) has finalised the geological modelling of the Unicorn Deposit near Corryong in north east Victoria and estimated its maiden Resource (Figure 1) and reported according to the JORC Code (refer Appendix 1).

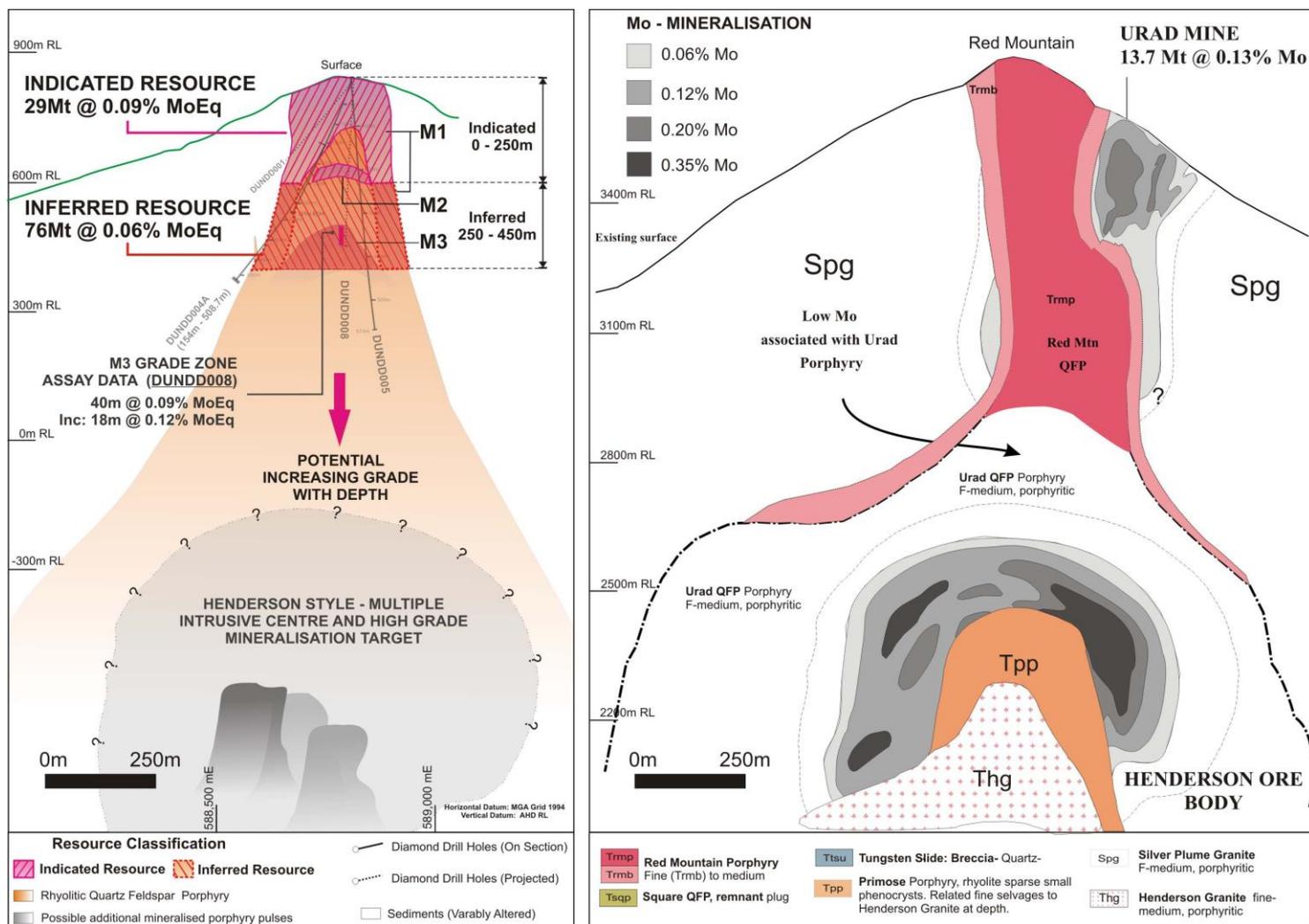
“After a number of years of exploration it is gratifying to formally declare Indicated and Inferred Resources for Dart Mining’s Unicorn project. **The initial Indicated Resource from surface to some 250m depth for the M1 & M2 Grade Zones is 29 million tonnes with a Molybdenum equivalent (MoEq) grade of 0.09%** (refer Table 1). We expect these tonnages to increase considerably with further infill drilling planned for early in 2012 - which will allow an Indicated Resource to be estimated to 450m depth,” said Lindsay Ward, Managing Director of Dart Mining.

Chairman Chris Bain added, “An Indicated Mineral Resource of 0.09% MoEq and an Inferred Mineral Resource open at depth is a great outcome for this maiden resource. **When you add the low strip ratio; renewable power and water in very close proximity; a supportive local community; available workforce and an already established logistics chain to market, Dart Mining is well placed to take Unicorn forward to a development project.**”

“The Total Resource at 105 million tonnes with a Molybdenum equivalent grade of 0.07% is better than many other Australian Moly explorers and remains open at depth below 450 metres. This means the potential for substantially increased resource tonnes and grade is very good, particularly when you compare Unicorn to similar deposits such as Henderson which shows increasing resource grades with depth (refer Figure 1). **Hole 8 was the first hole drilled at depth through the middle of the Unicorn deposit and intersected 40m @ 0.09% MoEq including a zone of 18m @ 0.12% MoEq – this hole ended in mineralisation,**” Lindsay Ward added.

Preliminary metallurgical testing suggests that through crushing and a simple flotation circuit that the Mo and Cu are easily recoverable. The Mo and Cu appear to be relatively coarse, unrelated to each other and that separate Mo and Cu concentrates should be able to be produced. Metallurgical test work is not yet complete and continues to investigate the impact of differing grind sizes on recovery and likely metal percentages in the final concentrates after the cleaning circuit. It is anticipated that the metallurgical test work report will be available for release in late October.

A summary of the Resource Estimation Procedure can be found on the Dart Mining website [www.dartmining.com.au](http://www.dartmining.com.au). The Executive Summary from the AMC Pty Ltd Resource Estimation report can be found in Appendix 1 attached. The full report is available on the Dart Mining website.



**Figure 1. Unicorn Mineral Resource** (Left) showing the 5,978,100mN cross section with the M1, M2 and M3 Grade Zones highlighted within the host quartz feldspar porphyry. Also defines the Indicated Mineral Resource area (M1 & M2) from surface to 600m RL (approximately 250m below surface) and the Inferred Mineral Resource between 600 mRL and 400 mRL (approximately from 250m to 450m below surface). The conceptual Henderson style Target associated with multiple intrusive centres is also illustrated. The **Henderson Mine** Geological cross section (Right) at the same scale is shown for comparison (Modified composite section compiled from: Wallace 1978-1995, Seedorf & Einaudi 2004 and Banks 2009).

### FURTHER GRADE AND TONNAGE POTENTIAL

The initial Resource estimated for the Unicorn deposit is interpreted to represent only the upper limits of a very large intrusive porphyry system which has already shown multiple stacked high grade molybdenum zones (M1, M2 and M3) which are typical of these large mineralised porphyry systems. Unicorn is comparable to a style of deposit that typically shows economic mineralisation extending well below 1000m depth. A series of deeper diamond drill holes are being planned to test the system below 450m in 2012.

Limited exploration drilling has extended outside the porphyry contacts to date, however surface geochemistry and drilling has already highlighted significant Mo, Cu and Ag grades in the mineralised wall rocks and southern breccia zone. This mineralised zone has not been included in the indicated or inferred resource as yet.

Further drilling will start to define the extent of the mineralisation surrounding the main porphyry with the intent to include this material in future updates to the Resource.

Adjacent soil geochemical anomalies showing diagnostic multi-element anomaly's and the previously reported large geophysical 3D IP anomaly at the north west porphyry contact are yet to be tested by drilling or follow up geophysical methods and represent high quality targets less than 500m laterally from the centre of the Unicorn molybdenum anomaly.

Dart Mining is confident there is far more to be discovered at Unicorn in the near future.

**Table 1: Unicorn Mineral Resource Summary (October 2011)**

JORC CLASSIFICATION	TONNAGE (Mt)	Mo Cutoff (ppm)	Mo (ppm)	Cu (ppm)	Ag (g/t)	Mo Eq <sup>1</sup> (ppm)
INDICATED	29	200	500	900	4.2	900
INFERRED	76	200	350	450	2.7	570
<b>TOTAL</b>	<b>105</b>	<b>200</b>	<b>400</b>	<b>570</b>	<b>3.1</b>	<b>670</b>

Variables and factors that influence Table 1.

- MoEq<sup>1</sup> (Molybdenum Equivalent) = Mo + Cu/3.65 + Ag x36.4 (assumes equal metallurgical recovery for each metal) – see Note 1 below.
- Estimated by ordinary kriging on 50 x 50 x 50m blocks at 200ppm Mo Cutoff grade (Cutoff considered to represent a level at which the combined value of recoverable metals clearly shows reasonable prospects for eventual economic extraction).
- Top Cutting has been applied to high grade drill intersections at different values for each metal, such that grades utilised in the Resource do not rise above the following upper limits:
  - Molybdenum Cutoff: 3000ppm (0.03% Mo). Maximum value in drill hole samples 6260ppm Mo
  - Copper Cutoff: 5300ppm (0.05% Cu). Maximum value in drill hole samples 10,300ppm Cu
  - Silver Cutoff: 40ppm (40 g/t Ag). Maximum value in drill samples 170g/t Ag
- Only the M1 and M2 mineralised zones are reported within the Indicated Resource.
- Specific Gravity assigned by lithology. Silica Cap - 2.72 g/cm<sup>3</sup> and Quartz Feldspar Porphyry / Porphyry Breccia 2.67 g/cm<sup>3</sup> and Polymict Breccia 2.73 g/cm<sup>3</sup> based on 14 samples representative of each style of lithology / mineralisation estimated in the Resource.

**Note 1: Molybdenum Equivalent Assumptions:** Based on relative value (with reference to the average price) of each metal in the 3 months 1st July to 30th September 2011 listed on the LME for Molybdenum and Copper and average price for the same period for Silver as follows:

- Mo US\$33,127.27 per tonne
- Cu US\$9061.32 per tonne
- Ag US\$38.90 per ounce

The Molybdenum Equivalent grade should not be interpreted as actual molybdenum grade as the conversion ratios vary with the volatile prices of Mo, Cu and Ag. However, it is the Company's opinion that elements considered here have a reasonable prospect to be recovered.

### Unicorn Mineral Resources by Grade Zone – October 2011

JORC CLASSIFICATION	Mo Cut off Grade (ppm)	GRADE ZONE <sup>2</sup>	TONNES (Mt)	Mo (ppm)	Cu (ppm)	Ag (g/t)	Mo Eq (ppm)
INDICATED	200	M1	27.5	500	930	4.3	290
INDICATED	200	M2	1.3	620	220	1.2	720
<b>TOTAL INDICATED RESOURCE</b>			<b>28.8</b>	<b>500</b>	<b>900</b>	<b>4.2</b>	<b>900</b>
INFERRED	200	M1	8.9	500	540	2.8	750
INFERRED	200	M3	11.1	530	300	2.1	690
INFERRED	200	INT	56.0	300	470	2.8	520
<b>TOTAL INFERRED RESOURCE</b>			<b>76.0</b>	<b>350</b>	<b>450</b>	<b>2.7</b>	<b>570</b>

**Note 2 - GRADE ZONES.** The Unicorn deposit features mineralisation of Mo, Cu and Ag that show different distributions. Individual Grade Zones define areas that contain significant molybdenum (the primary economic metal within the deposit) as well as copper and silver. These zones cross lithology types and form draped sub-horizontal layers or shells within the host porphyry. The total tonnage of the Grade Zone is estimated by considering the volume within each lithology (applying the respective specific gravity) and within either resource category to sum the total tonnage. Grade Zone M1 occurs both within the Indicated and Inferred Mineral Resource while M2 is only defined within the Indicated Mineral Resource. Grade Zone M3 is open with depth and only occurs within the Inferred Mineral Resource. Grade Zone INT refers to material that is not defined within M1, M2 or M3 but lies within the host Quartz Feldspar Porphyry body. Refer Figure 1 Cross Section (5,978,100mN).

### COMPETENT PERSON'S STATEMENT

Information in this report that relates to a statement of Exploration Results and Mineral Resources of the Company is based on information compiled by Dean Turnbull B.App.Sc.(Geol) Hons. M. AIG. Mr Turnbull is a Director and full time employee of Dart Mining NL and has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activity he has undertaken to qualify as a competent person as defined in the 2004 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves" (or "JORC Code"). Mr Turnbull has provided written consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## About Molybdenum

Molybdenum is both a traditional and new age / future metal with unique characteristics. Its primary use is as an essential metal in the manufacture of steel where it adds strength, hardness and toughness as well as increasing steel's resistance to corrosion. Molybdenum also has a range of chemical uses including acting as a catalyst to remove impurities such as sulphur in crude oil production as well as the paint and plastics industries.

Molybdenum has a growing use in the renewable energy sector where it is used in the manufacture of solar panels and has a potential use as the electrode plate for the separation of hydrogen and oxygen to produce hydrogen energy. Molybdenum is also used in nano technologies to make electrical goods smaller.

Molybdenum is traded on the LME and has worldwide demand of ~ 220,000 tonnes pa that is growing at 5% pa.

## About Dart Mining

Dart Mining NL (ASX:DTM), a Victorian-based exploration company, has discovered a new mineralised province hosting molybdenum (Mo) + copper (Cu) + silver (Ag) mineralised Climax style porphyry igneous intrusives. The Dart Mining mineral province occurs within the Lachlan Fold Belt near Corryong in north east Victoria and is the only known Australian host of Climax style porphyries which are proven hosts of world class mines around the world. The Lachlan Fold Belt and Gilmore suture that cross from NSW into Dart Mining's tenements in Victoria are proven hosts of substantial porphyry mines including North Parkes, Cadia and Ridgeway in NSW and the Benambra VMS to the south of Dart Mining's tenements in Victoria.

Dart Mining recently announced its maiden JORC Resource for its principal project Unicorn, which has very strong geological similarities to the world class Henderson primary Mo mine in Colorado, USA. Dart Mining tenements remain largely underexplored and the potential for identifying additional mineralised porphyries is very strong.

Dart Mining also has two gold projects including Mountain View where drilling identified high-grade gold along a 150 metre strike with results including 6m @ 7.8 g/t Au (including 2m @ 19.3 g/t Au) and 4m @ 8.72 g/t Au (including 1m @ 18.75 g/t Au) as well as the Fairleys disseminated gold prospect where drilling has confirmed the presence of a very large (up to 22 metres in width) disseminated sulphide related gold system.



## **Appendix I**

**AMC Consulting Pty Ltd**

**Unicorn Project – Summary Resource Estimation Report**

## EXECUTIVE SUMMARY

AMC was engaged by Dart Mining NL to review the drilling data conducted on the Unicorn Project and to provide a block model that could be used in the preparation of Mineral Resource estimate suitable for public reporting.

The Unicorn deposit is a multi phased porphyry intrusive system showing overlapping molybdenum, copper and silver mineralisation. The characteristics of the Unicorn deposit such as quartz stock working, the presence of a silica cap, domed mineralisation zones set at varying RLs and alteration of surrounding sediments indicates the deposit is similar to the Climax and Henderson Mo type deposits. The deposit is situated 20 km south of Corryong in North-Eastern Victoria.

Data consisting of a drilling database, comprising 9 diamond drill holes and 15 RAB drill holes and controlling wireframes of lithology, topography and molybdenum grade zones were supplied to AMC, by Dart Mining NL. A Block model was created using Datamine software by AMC. The block model consisted of parent blocks of 50m East x 50m North x 50m RL in dimension.

Using a simplified lithology for domaining the deposit and grade shells for the estimation of Mo, block grades were estimated using hard boundaries for Mo, Ag and Cu using Ordinary Kriging. Variography was undertaken using semi-variograms with 2 structures and spherical models using Supervisor<sup>TM</sup> software. The division of elements was based on the initial flagging of lithology into one of four DOMAIN codes.

As a check on the block model visual comparison of the block grades in 25m width sections and plans showing drill hole intercepts were produced.

The block model volume for individual lithology domains compares well to the volumetric estimate of the controlling wireframes. Future modeling may result in substantial changes in grade with the inclusion of additional data. With limited data block grades are dependent upon the lithology domaining and grade zones, which can severely limit the amount of available data used to inform blocks as hard boundaries were used.

The Mineral Resource has been classified as Indicated and Inferred and reported according to the JORC Code. Confidence in classification is based on:

- Above 600m RL- Indicated, reasonable spread of drilling intercepts within 50 -100m for approx. 50% of the plan area.
- Below 600m RL - Inferred – limited drilling intercepts.
- Surrounding Sediments – Inferred.

**The full AMC Resource Estimation report can be found on the Dart Mining website - [www.dartmining.com.au](http://www.dartmining.com.au)**