



ABN: 84 119 904 880

## REPORT FOR THE QUARTER ENDED 31 DECEMBER 2008

### HIGHLIGHTS

- Open Mo mineralisation intersected over the full length of all three diamond drill holes
- Assay highlights include 44m @ 584 ppm Mo (DUNDD002)
- Trail geophysics indicates conductors which are the subject of a new CSAMT survey

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### SUMMARY OF ACTIVITY

During the quarter Dart received all outstanding assay results from the 3 hole diamond drilling program undertaken at the Unicorn prospect. Diamond drilling confirms molybdenum (Mo) mineralisation extends beyond 180+ metres vertical depth below surface and is within a very large scale mineralised and altered system intersected in the RAB drilling program. As previously reported, this RAB program had already shown Mo mineralisation near surface containing 200+ ppm Mo (across 400m of the eastern margin of the surface mineralisation). Assay highlights of up to 44m @ 0.0584% Mo are highly significant within a very consistent mineralisation zone with up to 101m @ 0.04% Mo (Figure 3).

Preliminary investigations into various assay techniques for accurate Molybdenum grade determination were undertaken with very encouraging results. Mo grades determined via XRF analysis (using pulps from previous analyses) show grade increases varied between 7 and 42% (averaging some 20%) for mineralisation within fresh rock. This is a significant upgrade range but requires further tests to determine which technique will be best suited for routine analyses during the further evaluation of the prospect. Additional rare transition metals detected in drill core via XRF analysis including gallium, rhenium, indium and bismuth may contribute valuable by-products to the Unicorn Mo-Cu-Ag stockwork system.

Following a successful trial of geophysics (CSMAT) over the Unicorn prospect in October, a further more extensive investigation is planned for January 2009. This technique should provide data from depths of up to some 800-950m below surface. As such it is considered the survey will greatly assist in determining the potential size of the Unicorn Mo stockwork system and related Bi-Au mineralisation (Figure 3).

In view of the more difficult environment for the funding of exploration activity, the Board has taken steps to ensure ongoing funding is available for exploration. Directors and staff of Dart have elected to take a 50% pay cut and scale back staff numbers in order to maintain sufficient funds to progress the key prospects and carry out further regional gold exploration during the coming months. This measure also guarantees the availability of funds to carry out further geophysical testing over the Unicorn Porphyry prospect. Cash on hand at the end of December 2008 totalled \$512,000.

The company has relinquished the Tooma EL (EL6172 - NSW) in order to focus on primary targets highlighted as prospective using the proprietary Polygonal Vortex Model (Figure 1). Such targets have been secured under an application for an Exploration Licence (Mt Alfred EL5194) adjacent to the existing Cudgewa EL (EL5058) within Victoria.

## EXPLORATION ACTIVITY

### DART (EL4726)

### UNICORN MOLYBDENUM PORPHYRY

#### ALTERATION MAPPING PROGRAM:

In this quarter alteration studies over the Unicorn and Morgan soil geochemistry grid areas and drill cuttings from the Unicorn drill programs were completed by AusSpec International Pty Ltd. The work is assisting geological-structural understanding and targeting of the molybdenum and associated satellite mineralisation zones at Unicorn, Mt Morgan, Mammoth and provides a benchmark for wider intrusive related precious-base-transition metal exploration within Dart tenements.

#### DIAMOND DRILLING PROGRAM:

The three hole diamond drilling program totalled some 540m of core with the deepest hole testing the mineralisation up to 180m vertically below the surface. The drill hole collars are up to 320m apart and are generally collared on the eastern side of the surface anomaly (due to limited access – Figure 2). The drill holes all intersected variably silicified sediments, rhyolite, aplite and minor porphyritic dykes showing multiple generations of vein emplacement and sulphides. Geological logging has identified variable styles and intensity of alteration associated with different sulphide assemblages. This is strongly suggestive of a large zoned mineralisation system with Mantos style Mo occurring over a broad scale as shown in Figure 3.

Visible Molybdenite mineralisation was seen throughout the drill holes with each showing intense silica-sericite-pyrite alteration. The drilling shows Mo mineralisation extends beyond 180m below surface in both DUNDD001 and DUNDD003. The program has also highlighted the significant Cu and Ag mineralisation that overlaps the Mo zones. Potentially valuable rhenium, indium, gallium and bismuth are also present in smaller but significant quantities.

***A summary of the three drill holes is reproduced from the report released to the ASX on the 20<sup>th</sup> November 2008 to allow a full review.***

**DUNDD001** (-50° to 282.5° MGA Grid) (see Figures 2 & 3), collared just to the south of the highest surface Molybdenum anomaly zone, was completed to 242.1m.

The core was variably oxidised, especially the aplitic component of the breccias/stockwork with fresh pyrite and molybdenum first noted approximately 50m down-hole (~40m vertical) which persisted through to the end of the hole. The core shows predominantly intense levels of silica replacement and numerous veining events expressed as cross cutting stockwork vein sets. Visible Molybdenite was observed in a number of vein sets and orientations throughout the hole. The hole returned 239.1m @ 340 ppm Mo including 85m @ 445 ppm Mo from 2m - Table 1. Significant Cu and Ag are present, particularly below the weathered zone with Zn concentrated within breccias near the base of the hole showing 29.1m @ 0.24% Zn from 213m. Indium averages 1.91 ppm over the 239.1m sampled with an increase corresponding to the Zn zone of 29.1m @ 2.91 ppm In from 213m. Re values also show an increase in this zone from 212m with 30m @ 0.765 ppm Re..

DUNDD002 (-65° to 160.5° MGA Grid) was drilled to 101m and showed variably oxidisation within silica replaced material. The hole returned 101.0m @ 401 ppm Mo including 44m @ 584 ppm Mo from surface. Both Cu and Ag are significant with silver showing up to 29m @ 10.88 ppm Ag - Table 1.

Holes DUNDD001 & DUNDD002 were arranged in a scissor configuration to ensure overlap occurred over a portion of the hole and was designed to gather structural information on the



orientation of any internal mineralised vein sets and also to better test the distribution of Mo in 3D where the two holes intersect – see Figures 1 & 2). The consistent nature of the Mo mineralisation is further illustrated by the similarity in the grade of the two holes in the overlap zone – Figure 2.

Hole DUNDD003, a re-entry of a pre-collared RAB drill hole (DUNRAB006), was drilled to 280m and traverses the eastern margin of the surface Mo anomaly. The intensely silica replaced alteration product observed in the other two drillholes was intersected from 210-260m, showing this alteration style has depth continuity. Molybdenite was visually logged as thin veinlets and aggregates or grains occurring in most units up to the end of the hole. Pyrite within thin stockwork veinlets occurs throughout the different rock units. Locally the coarser grained pyrite is associated with crystals of dark sphalerite along fractures. Hole DUNDD003 illustrates the potential for multiple stacked zones of higher grade Mo within an elevated background grade of 379 ppm Mo. The hole returned 196m @ 379 ppm Mo including three significant zones of higher grade Molybdenum - Table 1 & Figure 2. Low level Zn occurs throughout the hole with a highlight from 142m returning 47m @ 0.168% Zn with a correspond increase in Indium levels over the same interval of 47m @ 3.06 ppm, well above the average for the entire hole of 195.8m @ 1.43 ppm In. Re values are consistent and average 195.8m @ 0.53ppm Re from 82m.

Silver and copper were recorded throughout the system. On average the Ag content of the altered sediments on the eastern margin of the main surface Mo anomaly are lower than within the intensely silica replaced central zone of the anomaly, as are the Cu values.

The results have also highlighted the unusual consistency of the Mo mineralisation throughout the holes appearing to overprint both lithology and alteration. This is indicative of prominent late stage mineralisation throughout the system with Mo mineralisation present within altered sediments and intensely silica – sericite – clay altered sediments, aplite and rhyolite. Some earlier Mo mineralisation and alteration replaced by later alteration patterns are evident. This may be indicative of a multi-pulsed Molybdenum stockwork system.

#### **RE-ASSAY PROGRAM:**

Following preliminary investigations into various assay techniques for accurate Molybdenum grade determination in a limited trial it was found Mo grades determined via XRF analysis technique (using pulps from the previous analyses) appear to report higher grades (over the standard acid digestion assay technique) of up to 40% for mineralisation within fresh rock. Increases in silver and other metals were also noted from this work (ALS batch OR08157164) utilising four acid digestion methods compared with standard digestions.

#### **GEOPHYSICS PROGRAM:**

Zonge Engineering (Aust) were contracted to provide data along a single orientation line 5,978,100 mN (Figure 2) during October 2008. This revealed the presence of conductors that are thought to relate to the structural composition of the Molybdenum porphyry stockwork system and indicated the technique was likely to provide good quality sub-surface data to depths of around 800-950m below surface.

A further more extensive survey is now underway consisting of 5 lines each being some 900m in length and will greatly assist further drill targeting and may locate additional areas of high conductivity below the surface Mo anomaly already defined.

20 January 2009



## **DART (EL4726)**

### **MAMMOTH PORPHYRY**

Exploration at North Mammoth, including drilling supported by a Rediscover Victoria Drilling Grant from the Department of Primary Industries, uncovered high peak Indium anomalism. Significant molybdenum, bismuth, tin was also intersected in association with silver, zinc, copper and gold within diamond holes DNMD001 and DNMD003. Modelling results to date suggest mineralisation penetrated only a distal apical dyke zone of the Mammoth Formation and consequently further potential may occur at depth. Highly anomalous zones of silver, gold, copper and zinc occur over a maximum of several metres width having peak values of 32 ppm silver, 0.3 ppm gold, 0.6 % copper, 2% zinc, 40.3 ppm indium, 37.3 ppm molybdenum, 14ppm tellurium, 347ppm tin, 132 ppm Bi, 2260 ppm Pb. Indium was found to be in close association with zinc.

An alteration study combined with geophysical remodelling of magnetic data was also completed at North Mammoth. This work recommended further potential exist along strike to the north at nearby Donovan Hill, possibly as a concealed high level apophysis beneath the Saltpetre Gap Fault system.

#### **COMPETENT PERSON'S STATEMENT**

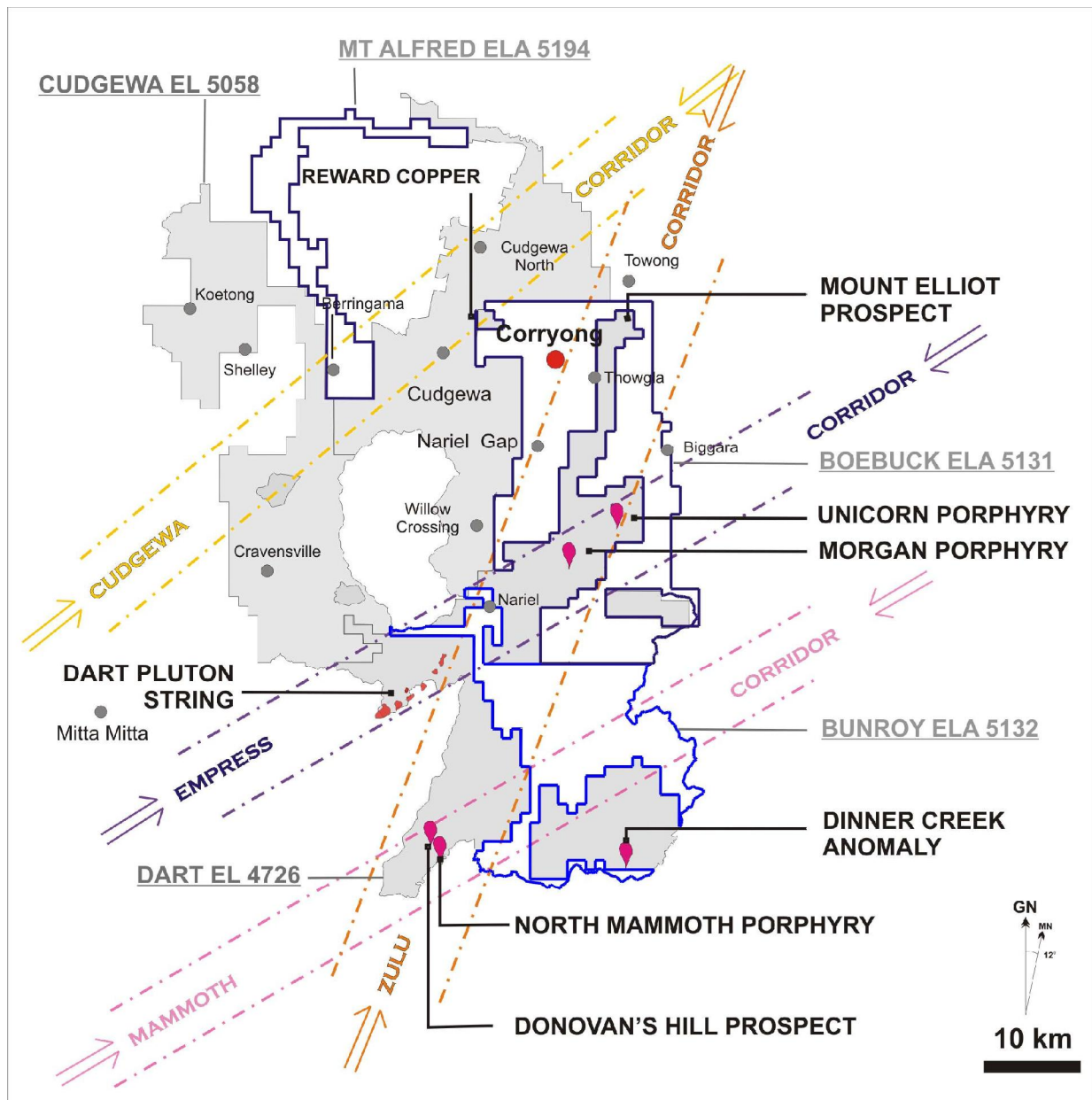
Information in this report that relates to a statement of exploration results of the Company is based on information compiled by Dean Turnbull, B. App. Sc (Geol.), AIG. Mr Turnbull is a Director of Dart Mining NL and has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activity undertaken. He is qualified 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 consents to the inclusion of this information in the form and context in which it appears in this report.

For further information visit our website at [www.dartmining.com.au](http://www.dartmining.com.au) or contact

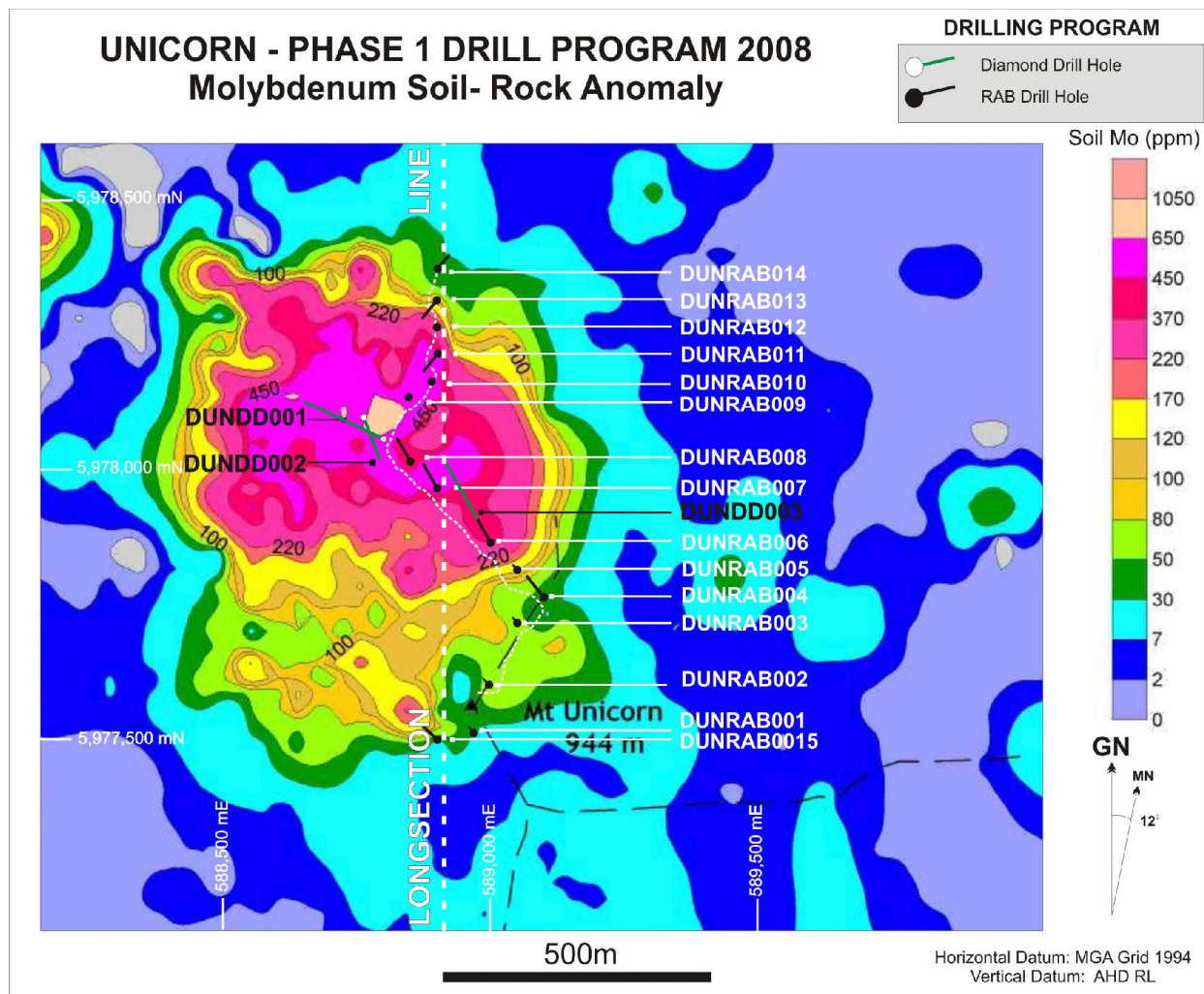
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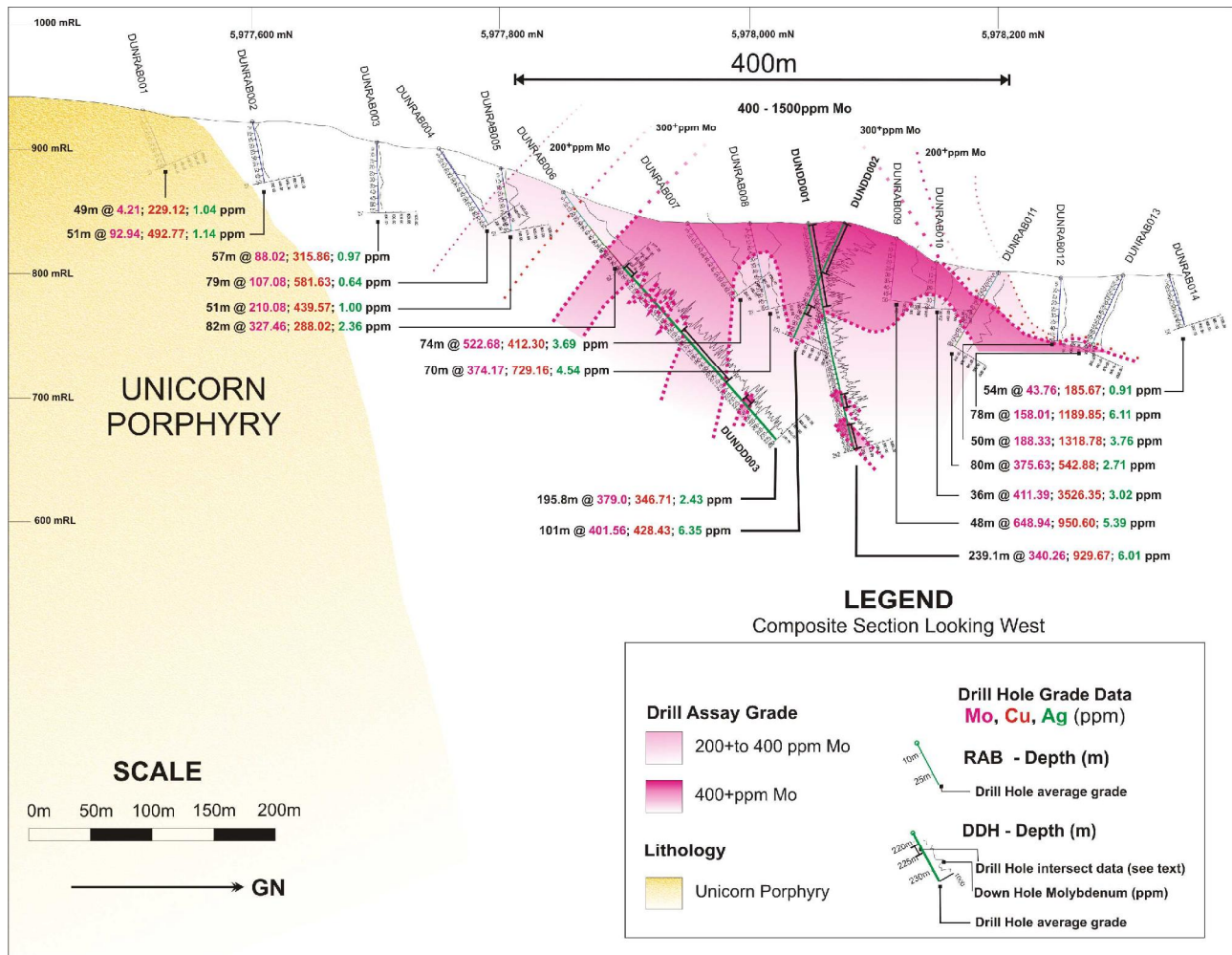
**Figure 1:** Dart's Polygonal Vortex Model with Prospect Locations and Tenement Holdings



**Figure 2: Drill Plan - Phase 1 Unicorn RAB and Diamond Drill Programs**



**Figure 3: Longsection projection – Unicorn Porphyry Molybdenum Prospect – Drill Program Assay Summary**



**Table 1: Significant Assay Results – Unicorn Diamond Drill Program 2008**

| Hole No.  | MGA East (m) | MGA North (m) | mRL AHD (m) | Hole Dip | Hole Azimuth (MGA Grid) | Total Depth (m) | Comments                                                                             |
|-----------|--------------|---------------|-------------|----------|-------------------------|-----------------|--------------------------------------------------------------------------------------|
| DUNDD001  | 588,809      | 5,978,047     | 840         | -50      | 282.5                   | 242.1           | Interval 37 - 38m: un-assayed due to destruction during sample preparation.          |
| DUNDD002  | 588,777      | 5,978,076     | 840         | -65      | 160.5                   | 101             |                                                                                      |
| DUNDD003* | 589,000      | 5,977,850     | 865         | -50      | 330.5                   | 279.8           | Intervals 252 - 253m & 270 - 271m: un-assayed due to geophysical properties testing. |

Note: Drill Collar Coordinates are approximate only (via GPS) and subject to final survey.  
 \* - Pre-Collared to 82m with DUNRAB006

| Hole No.  | From (m) | Significant Intersections Mo | From (m) | Significant Intersections Cu | From (m) | Significant Intersections Ag |
|-----------|----------|------------------------------|----------|------------------------------|----------|------------------------------|
| DUNDD001  | 2        | 239.1m @ 0.034% Mo           | 2        | 239.1m @ 0.093%              | 2        | 239.1m @ 6.01 ppm            |
|           | 2        | Including 85m @ 0.044%       | 125      | Including 88m @ 0.171%       | 43       | Including 68m @ 9.35 ppm     |
|           | 183      | Including 13m @ 0.041%       |          |                              |          |                              |
|           | 215      | Including 27.1m @ 0.040%     |          |                              |          |                              |
| DUNDD002  | 0        | 101m @ 0.040%                | 0        | 101m @ 0.043%                | 0        | 101m @ 6.35 ppm              |
|           | 0        | Including 44m @ 0.058        | 88       | Including 11m @ 0.158%       | 54       | Including 29m @ 10.88 ppm    |
|           | 73       | Including 7m @ 0.052         |          |                              |          |                              |
| DUNDD003* | 82       | 195.8 @ 0.038%               | 82       | 195.8 @ 0.035%               | 82       | 195.8 @ 2.43 ppm             |
|           | 82       | Including 11m @ 0.044%       | 170      | Including 44m @ 0.048%       | 143      | Including 47m @ 3.3 ppm      |
|           | 157      | Including 58m @ 0.044%       | 250.8    | Including 15.2m @ 0.053%     | 249      | Including 8m @ 4.67 ppm      |
|           | 235      | Including 9m @ 0.049%        |          |                              |          |                              |

**Figure 4: Bismuth Geochemistry**  
 Unicorn grid area, showing additional satellite zones of mineralisation to the Mo Stockwork zone shown in Figure 2. A CSMAT geophysical traverse is planned to extend from the Central Mo Zone to the eastern bismuth anomaly zone

