## **ASX ANNOUNCEMENT**

25 January 2011

## **BURRACOPPIN IRON PROJECT**

## **HIGHLIGHTS**

- Massive hematite samples recovered from field (+60% Fe by Niton XRF)
- Assays of rockchip samples by laboratory XRF exceed Niton XRF values
- Aeromagnetic survey of northern portion of project area commissioned

Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") wishes to announce that it has received assay results for rockchip samples collected in the vicinity of aeromagnetic anomalies at Burracoppin, 280 km east of Perth and 70km west of the Southern Cross greenstone belt which hosts Cazaly Resources Ltd's Mt Caudan iron deposit.

The samples were obtained from scattered outcrops of altered and unaltered Archaean quartz-magnetite/banded iron formation ("Bif") and goethitic and pisolitic material, and compare favourably with the Niton XRF values which were reported in the Company's Quarterly Report to the ASX dated 21 January 2011. In general, the laboratory XRF Fe% assays exceed the Niton XRF Fe% values.

Approximately 11% of the 104 samples submitted contained in excess of 50% Fe, with Loss on Ignition ("LOI") between 10% and 13%. (Refer Table 1 below). Assuming that all LOI is attributed to waters of crystallization associated with hydrated iron oxides, this +50% Fe material would upgrade to 57-64% Fe after calcining. These results suggest that mineralising processes capable of upgrading Bif to oregrade goethite have been active at Burracoppin.

Table 1. Rock Sample Niton XRF Values\* Compared to Laboratory XRF Results\*\* (+50% Fe cut off)

|          |         |          | Niton*  | Lab** | Lab**                          | Lab** | Lab** | Lab**            |               |
|----------|---------|----------|---------|-------|--------------------------------|-------|-------|------------------|---------------|
| Rockchip | GDA94   | GDA94    | Fe      | Fe    | Al <sub>2</sub> O <sub>3</sub> | LOI   | Р     | SiO <sub>2</sub> | Field         |
| Sample   | Easting | Northing | %       | %     | %                              | %     | %     | %                | Description   |
| E013674  | 640059  | 6531657  | 21.9    | 56.51 | 1.92                           | 11.47 | 0.224 | 4.75             | Goethitic Bif |
| E013722  | 642032  | 6521389  | 56.4    | 55.23 | 4.64                           | 12.69 | 0.169 | 3.34             | Goethitic Bif |
| E013709  | 642827  | 6522373  | 55.7    | 54.09 | 5.18                           | 11.68 | 0.055 | 5.22             | Goethitic Bif |
| E013723  | 642020  | 6521416  | 55.1    | 53.73 | 5.93                           | 12.36 | 0.184 | 4.51             | Goethitic Bif |
| E013716  | 642892  | 6522294  | 48.0    | 53.64 | 6.51                           | 10.42 | 0.085 | 5.55             | Goethitic Bif |
| E013717  | 642898  | 6522278  | 36.8    | 53.48 | 5.18                           | 11.93 | 0.059 | 5.45             | Goethitic Bif |
| E013721  | 642039  | 6521378  | 52.3    | 53.28 | 5.95                           | 11.59 | 0.071 | 5.94             | Goethitic Bif |
| E013719  | 642929  | 6522040  | 57.8    | 53.12 | 4.35                           | 11.08 | 0.129 | 8.1              | Goethitic Bif |
| E013762  | 647598  | 6511705  | 41.1    | 53.07 | 5.95                           | 13.05 | 0.122 | 4.73             | Goethitic Bif |
| E013718  | 642930  | 6522056  | 39.8    | 52.48 | 6.73                           | 12.13 | 0.134 | 4.76             | Goethitic Bif |
| E013720  | 642930  | 6522032  | 39.2    | 50.23 | 7.32                           | 12.37 | 0.127 | 6.47             | Goethitic Bif |
|          |         |          | Average | 53.53 | 5.42                           | 11.89 | 0.123 | 5.35             |               |

<sup>\*\*</sup>Lab: Fe,  $Al_2O_3$ ,  $SiO_2$ , & P were determined by X-ray fluorescence spectroscopy (XRF) on pulverised samples fused with a lithium borate flux. Single point Loss on Ignition (LOI) was determined by the use of Thermo Gravimetric Analysis (TGA) at  $1000^{\circ}$ C. Detection limits for listed elements were 0.01% except for P (0.001%)

1 | P a g e



(Table 3 overleaf shows assay results for all 34 samples with+ 35% Fe, which relate to various degrees of mineralisation of Bif's. The laboratory assays for Fe are in general in excess of the Niton Fe values).

Assay results for the second batch of samples submitted, which include samples of **massive hematite returning Niton XRF values in excess of +60% Fe**, are still awaited. (Refer Table 2 and Plate 1).

Table 2. Rock Samples with significant (+35% Fe) Niton XRF Values, Sorted by Value, Formal XRF Assays Awaited

| Rockchip | GDA94 GDA94 |          | Niton | Field         |  |  |
|----------|-------------|----------|-------|---------------|--|--|
| Sample   | Easting     | Northing | Fe %  | Description   |  |  |
| E013657  | 642176      | 6520363  | 63.4  | Hematite      |  |  |
| E013650  | 642278      | 6520194  | 62.2  | Hematite      |  |  |
| E013644  | 642463      | 6520234  | 57.4  | Hematitic BIF |  |  |
| E013642  | 642284      | 6520219  | 55.3  | Hematitic BIF |  |  |
| E013660  | 642186      | 6520359  | 54.8  | Hematitic BIF |  |  |
| E013655  | 642566      | 6520276  | 53.9  | Hematitic BIF |  |  |
| E013647  | 642293      | 6520197  | 51.1  | Goethitic BIF |  |  |
| E013632  | 642297      | 6520206  | 50.6  | Hematitic BIF |  |  |
| E013646  | 642214      | 6520172  | 50.6  | Goethitic BIF |  |  |
| E013656  | 642363      | 6520215  | 49.9  | Hematitic BIF |  |  |
| E013649  | 642569      | 6520304  | 47.8  | Goethitic BIF |  |  |
| E013630  | 642286      | 6520177  | 47.2  | Hematitic BIF |  |  |
| E013628  | 642259      | 6520255  | 46.3  | Goethitic BIF |  |  |
| E013651  | 639662      | 6518601  | 46.1  | Hematitic BIF |  |  |
| E013612  | 642471      | 6523096  | 45.3  | Goethitic BIF |  |  |
| E013659  | 642229      | 6520282  | 44.0  | Hematitic BIF |  |  |
| E013631  | 642336      | 6520157  | 41.6  | Goethitic BIF |  |  |
| E013654  | 639651      | 6518596  | 41.6  | Goethitic BIF |  |  |
| E013662  | 643560      | 6519575  | 36.0  | Goethitic BIF |  |  |

<sup>\*</sup>Note: Niton XRF values from ~0.5kg grab samples are not necessarily representative of entire outcrops or subcrops, but give an indication of where iron mineralising processes have occurred.

The presence of massive high grade hematite in rockchip samples suggests that the mineralising processes at Burracoppin are not only capable of upgrading Bif to oregrade goethite material, but are also capable ofproducing Direct Shipping Ore ("DSO") style hematite.

The cut and polished sample of massive high grade (+60%Fe) hematite from Johnstons Prospect (Plate 1 overleaf) contains some relict banding and also evidence of recrystallisation. Mapping and trenching of Johnstons, Lamberts and Lamberts West prospects are being planned.

Based on these encouraging results south of Burracoppin, the Company has commissioned a geophysical contractor to fly a low level 100m line spaced airborne magnetic and radiometric survey over its northern Burracoppin tenements to generate further targets for field follow up. This survey is due to commence by March 2011.





Plate 1: Cut Section of Massive Hematite – Johnstons Prospect, Burracoppin

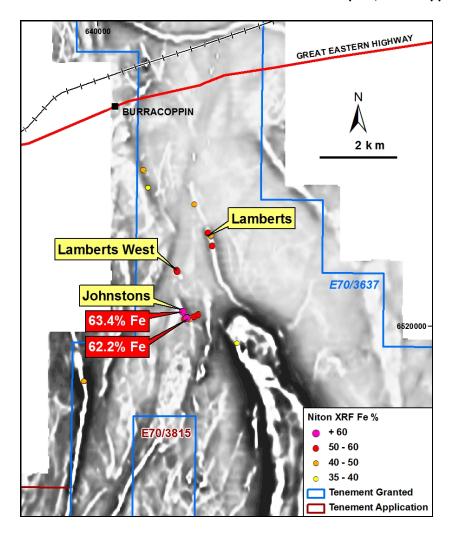


Figure 1. Burracoppin Magnetic Image with Niton XRF Fe% Values



Table 3. Rock Sample Niton XRF Values\* Compared to Laboratory XRF Results\*\* (+35% Fe cut off applied)

|          |         |           | Niton* | Lab** | Lab**                          | Lab** | Lab** | Lab**            |               |
|----------|---------|-----------|--------|-------|--------------------------------|-------|-------|------------------|---------------|
| Rockchip | GDA94   | GDA94     | Fe     | Fe    | Al <sub>2</sub> O <sub>3</sub> | LOI   | Р     | SiO <sub>2</sub> | Field         |
| Sample   | Easting | Northing  | %      | %     | %                              | %     | %     | %                | Description   |
|          |         | Detection | Limit  | 0.01  | 0.01                           | 0.01  | 0.001 | 0.01             |               |
| E013674  | 640059  | 6531657   | 21.9   | 56.51 | 1.92                           | 11.47 | 0.224 | 4.75             | Goethitic BIF |
| E013722  | 642032  | 6521389   | 56.4   | 55.23 | 4.64                           | 12.69 | 0.169 | 3.34             | Goethitic BIF |
| E013709  | 642827  | 6522373   | 55.7   | 54.09 | 5.18                           | 11.68 | 0.055 | 5.22             | Goethitic BIF |
| E013723  | 642020  | 6521416   | 55.1   | 53.73 | 5.93                           | 12.36 | 0.184 | 4.51             | Hematitic BIF |
| E013716  | 642892  | 6522294   | 48.0   | 53.64 | 6.51                           | 10.42 | 0.085 | 5.55             | Goethitic BIF |
| E013717  | 642898  | 6522278   | 36.8   | 53.48 | 5.18                           | 11.93 | 0.059 | 5.45             | Goethitic BIF |
| E013721  | 642039  | 6521378   | 52.3   | 53.28 | 5.95                           | 11.59 | 0.071 | 5.94             | Goethitic BIF |
| E013719  | 642929  | 6522040   | 57.8   | 53.12 | 4.35                           | 11.08 | 0.129 | 8.1              | Hematitic BIF |
| E013762  | 647598  | 6511705   | 41.1   | 53.07 | 5.95                           | 13.05 | 0.122 | 4.73             | Goethitic BIF |
| E013718  | 642930  | 6522056   | 39.8   | 52.48 | 6.73                           | 12.13 | 0.134 | 4.76             | Goethitic BIF |
| E013720  | 642930  | 6522032   | 39.2   | 50.23 | 7.32                           | 12.37 | 0.127 | 6.47             | Goethitic BIF |
| E013752  | 648196  | 6512276   | 43.1   | 49.98 | 8.2                            | 12.04 | 0.095 | 6.81             | Goethitic BIF |
| E013672  | 640085  | 6531763   | 32.3   | 48.89 | 8.86                           | 3.24  | 0.114 | 17.05            | Goethitic BIF |
| E013769  | 647801  | 6511905   | 8.8    | 48.41 | 8.78                           | 12.85 | 0.08  | 7.66             | Goethitic BIF |
| E013753  | 648196  | 6512276   | 44.8   | 47.95 | 9.04                           | 11.93 | 0.073 | 8.48             | Goethitic BIF |
| E013707  | 642801  | 6522355   | 49.9   | 45.62 | 6.58                           | 10.28 | 0.213 | 17.04            | Goethitic BIF |
| E013712  | 642877  | 6522356   | 28.8   | 45.30 | 7.92                           | 10.58 | 0.032 | 16.25            | Goethitic BIF |
| E013744  | 641162  | 6523972   | 42.3   | 44.85 | 8.42                           | 6.42  | 0.011 | 20.5             | Goethitic BIF |
| E013711  | 642883  | 6522327   | 35.5   | 44.53 | 6.14                           | 9.34  | 0.033 | 19.87            | Goethitic BIF |
| E013714  | 642876  | 6522180   | 7.1    | 44.35 | 8.64                           | 10.6  | 0.081 | 16.47            | Goethitic BIF |
| E013745  | 641162  | 6523972   | 36.5   | 43.83 | 8.5                            | 7.7   | 0.011 | 21.35            | Goethitic BIF |
| E013761  | 647600  | 6511699   | 22.3   | 43.68 | 9.01                           | 11.26 | 0.037 | 16.27            | Goethitic BIF |
| E013748  | 641162  | 6523972   | 32.0   | 43.41 | 8.07                           | 8.05  | 0.013 | 21.17            | Goethitic BIF |
| E013710  | 642881  | 6522305   | 36.9   | 43.40 | 11.92                          | 12.01 | 0.054 | 13.05            | Goethitic BIF |
| E013750  | 648196  | 6512276   | 29.3   | 43.28 | 11.28                          | 12.45 | 0.053 | 13.27            | Goethitic BIF |
| E013727  | 639419  | 6519608   | 16.4   | 42.51 | 2.11                           | 2.53  | 0.026 | 34.54            | Goethitic BIF |
| E013770  | 647358  | 6512053   | 40.9   | 42.11 | 15.05                          | 7.02  | 0.02  | 16.04            | Goethitic BIF |
| E013754  | 648196  | 6512276   | 20.6   | 40.85 | 13.88                          | 11.67 | 0.066 | 15.44            | Goethitic BIF |
| E013699  | 642438  | 6523312   | 20.6   | 40.38 | 7.69                           | 8.8   | 0.04  | 23.46            | Goethitic BIF |
| E013729  | 639428  | 6519570   | 34.3   | 36.83 | 1.43                           | 1.44  | 0.016 | 44.07            | Goethitic BIF |
| E013739  | 641186  | 6523935   | 39.8   | 36.32 | 6.38                           | 6.82  | 0.053 | 33.97            | Goethitic BIF |

<sup>\*\*</sup>Lab: Fe,  $Al_2O_3$ ,  $SiO_2$ , & P were determined by X-ray fluorescence spectroscopy (XRF) on pulverised samples fused with a lithium borate flux. Single point Loss on Ignition (LOI) was determined by the use of Thermo Gravimetric Analysis (TGA) at  $1000^{\circ}C$ .

<sup>\*</sup> The Niton XRF unit is a Company owned portable analyser of various elements/ metals, which utilises an x-ray fluorescence tube to take rapid measurements over a pin-point area. It is used by Enterprise to take gain an appreciation of contained iron mineralisation of grab samples from rock outcrops or subcrops, but is not an absolute determinant of contained iron.



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The information in this announcement that relates to Exploration Results has been compiled by Mr Dermot Ryan, who is a Fellow of the Australian Institute of Geoscientists, and a full time employee of geological consultancy Xserv Pty Ltd. Mr Ryan has sufficient relevant experience in the techniques being reported and styles of mineralisation and types of deposit under consideration, and in the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.