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Fraser Range:

Gold, base metals

Polar Bear:

Nickel, gold

Youanmi:

Zinc, copper, nickel, PGM's

Lawlers:

Nickel

Collurabbie:

Nickel, copper, PGM's


NICKEL-COPPER SULPHIDES DISCOVERED AT YOUANMI

- **First drill hole at the Inky prospect intersects 6 metres of nickel-copper sulphides in Youanmi intrusion**
- **This is the only hole testing the top of an EM conductor estimated to extend 200m along strike and 700m down dip**
- **Geological similarity to contact sequence of the Platreef (Bushveld) also enhances PGM potential**

Sirius Resources (**ASX:SIR**) advises that nickel-copper sulphide mineralisation has been intersected in the first drill hole at the Inky prospect at its 70 per cent owned Youanmi project in Western Australia (see *Figure 1 and Table 1*). The intersection comprises:

- **6.0m @ 0.96% Ni, 1.03% Cu and 6.6g/t Ag** from 155m in hole SYMD0006, including:
- An upper copper zone of **1.8m @ 1.7% Cu, 0.4% Ni and 10.9g/t Ag** from 155m and;
- A central nickel zone of **1.7m @ 2.15% Ni and 0.18% Cu** from 158.3m;

The intersection is very encouraging because it is the first hole drilled at the Inky prospect to test electromagnetic (EM) conductor MSC02, which is modelled to have a strike length of 200m and a down dip extent of 700m. The drill hole intersected the top of this conductor, which is open along strike and down dip (see *Figures 2 and 3*).

Results are also awaited for hole SYMD0005, which intersected disseminated sulphides at the MNC03 conductor (see *Figure 2 and prior ASX announcement*). A downhole EM survey will commence next week with the aim of confirming the geometry of these EM conductors. Follow up drilling is scheduled for late June, subject to drill rig availability.

The mineralisation in SYMD0006 occurs close to the base of the Youanmi layered intrusion within gabbro and pyroxenite rocks. The nickel mineralisation occurs in massive and breccia sulphides and is flanked by the copper sulphide mineralisation (see *Figure 1*). The approximate 1:1 ratio of nickel and copper is typical of mafic intrusion hosted sulphide deposits, but the presence of deformed quartz veins and breccia textures together with high silver levels also suggests that the mineralisation is remobilised.



Figure 1. Photo of nickel-bearing breccia sulphide and disseminated chalcopyrite in SYMD0006, Inky prospect, Youanmi.

The area is also prospective for Platreef-style platinum metal group (PGM) mineralisation. The rocks and sulphide minerals intersected in the drilling to date are very similar to those of the contact sequence in the northern lobe of the Bushveld complex in South Africa, which contains the Platreef PGM deposit. Furthermore, the background palladium and platinum content of the Youanmi gabbro is highly anomalous relative to normal gabbros, showing ranges of 20-60ppb palladium and 10-40ppb platinum.

About the Youanmi project

The Youanmi project covers an area of 597 square kilometres, largely over the Youanmi layered igneous intrusion and its immediate country rocks. It is a relatively unexplored area that is prospective for magmatic-style nickel-copper-platinum group metal (PGM) mineralisation, similar to the intrusion associated deposits such as those at Radio Hill, Sally Malay, Kabanga and Voisey's Bay, and also for reef-style PGM mineralisation such as that found at the Platreef in the northern Bushveld of South Africa. Sirius has a 70 per cent interest in this project, with Mark Creasy (Sirius' major shareholder) having a 30 per cent interest. Vanadium, titanium and iron rights are held by Mr Creasy and excluded from this joint venture.



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Prospect/ conductor	Hole number	North	East	Azim	Dip	From (m)	To (m)	Width (m)	Comment/grade
Inky	SYMD0006	3750	11100	059°	-55°	155.00	161.00	6.00	0.96% Ni, 1.03% Cu, 6.59g/t Ag
		Including upper copper zone				155.00	156.80	1.80	0.41% Ni, 1.71% Cu, 10.94g/t Ag
		Including central nickel zone				158.30	160.00	1.70	2.15% Ni, 0.18% Cu
		Including lower copper zone				160.00	161.00	1.00	2.05% Cu, 13.00g/t Ag

Table 1. Assay results for SYMD0006, Inky prospect, Youanmi project.

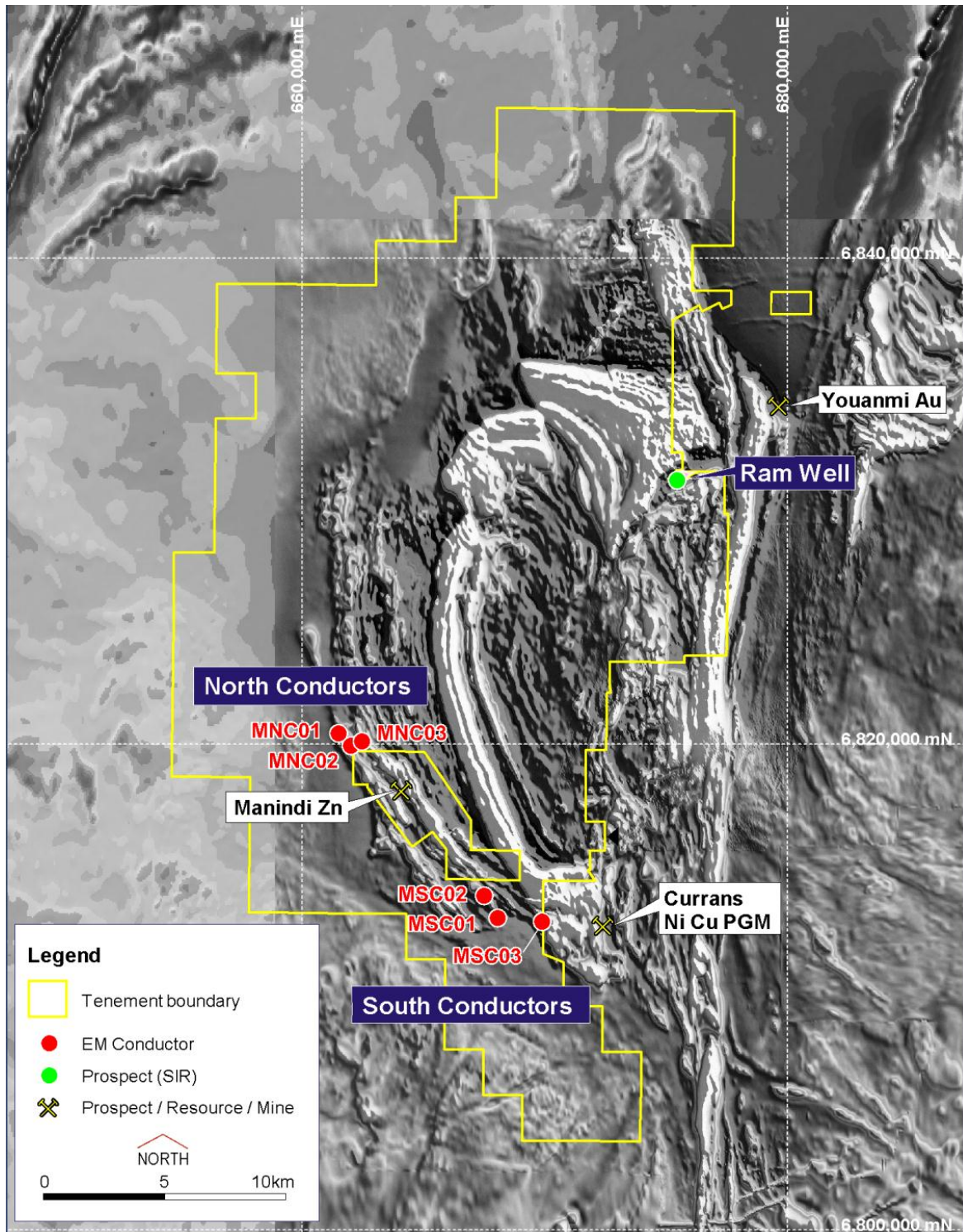


Figure 2. Location of the Inky prospect (MSC02).

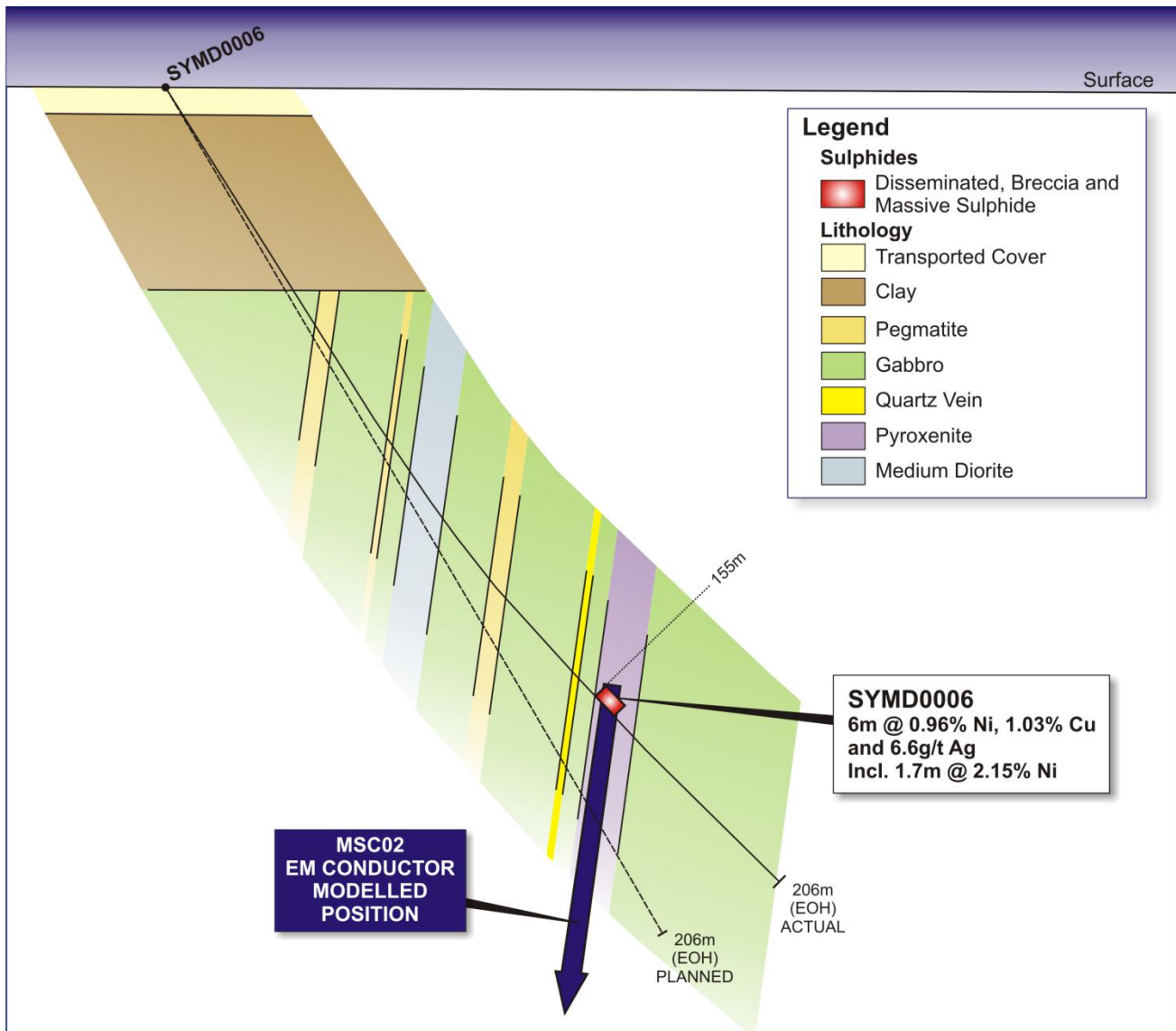


Figure 3. Cross section of drill hole SYMD0006 at the Inky prospect (EM conductor MSC02).

Competent Persons statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Dr Mark Bennett, who is an employee of the company. Dr Bennett is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Bennett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Exploration results are based on standard industry practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures. Reverse circulation (RC), aircore (AC) and rotary air blast (RAB) drilling samples are collected as composite samples of 4 or 2 metres and as 1 metre splits (stated in results). Mineralised intersections derived from composite samples are subsequently re-split to 1 metre samples to better define grade distribution. Core samples are taken as half NQ core or quarter HQ core and sampled to geological boundaries where appropriate. For soil samples, PGM and gold assays are based on an aqua regia digest with Inductively Coupled Plasma (ICP) finish and base metal assays may be based on aqua regia or four acid digest with inductively coupled plasma optical emission spectrometry (ICPOES) or atomic absorption spectrometry (AAS) finish. In the case of reconnaissance RAB, AC, RC or rock chip samples, PGM and gold assays are based on lead or nickel sulphide collection fire assay digests with an ICP finish, base metal assays are based on a four acid digest and inductively coupled plasma optical emission spectrometry (ICPOES) and atomic absorption spectrometry (AAS) finish, and where appropriate, oxide metal elements such as Fe, Ti and Cr are based on a lithium borate fusion digest and X-ray fluorescence (XRF) finish. Sample preparation and analysis is undertaken

at Genalysis Intertek and Ultratrace laboratories in Perth, Western Australia. The quality of RC drilling samples is optimised by the use of riffle and/or cone splitters, dust collectors, logging of various criteria designed to record sample size, recovery and contamination, and use of field duplicates to measure sample representivity. The quality of analytical results is monitored by the use of internal laboratory procedures together with certified standards, duplicates and blanks and statistical analysis where appropriate to ensure that results are representative and within acceptable ranges of accuracy and precision. Exploration results obtained by other companies and quoted by Sirius have not necessarily been obtained using the same methods or subjected to the same QAQC protocols. These results may not have been independently verified because original samples and/or data may no longer be available. Where quoted, nickel-copper intersections are based on a minimum threshold grade of 0.3% Ni and gold intersections are based on a minimum gold threshold grade of 0.1g/t Au unless otherwise stated. All sample and drill hole co-ordinates are based on the GDA/MGA grid and datum unless otherwise stated.

Mineral Resources, if stated, have been estimated using standard accepted industry practices, as described in each instance. Top cuts have been applied to the composites based on statistical analysis and consideration of the nature and style of mineralization in all cases. Where quoted, Mineral Resource tonnes and grade, and contained metal, are rounded to appropriate levels of precision, which may cause minor apparent computational errors. Mineral Resources are classified on the basis of drill hole spacing, geological continuity and predictability, geostatistical analysis of grade variability, sampling analytical spatial and density QAQC criteria, demonstrated amenability of mineralization style to proposed processing methods, and assessment of economic criteria.

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