



# COPPERMOLY Limited

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## ASX Announcement

28<sup>th</sup> April 2011

ASX Code: COY

### TECHNICAL REPORT – QUARTER ENDED 31 MARCH 2011

#### HIGHLIGHTS

- **Field activities are currently underway in preparation for a drilling programme expected to begin in May 2011.**
- **Assay results from all drillholes by Barrick (PNG Exploration) Ltd (“Barrick”) (a wholly owned subsidiary of Barrick Gold Corporation) at the Nakru-1 copper-gold Prospect show copper mineralisation over at least 500 metres strike length.**
- **Regional rock sampling confirms anomalous grades of copper over an area of 800 metres by 600 metres at the Kulu prospect.**

#### **1.0 PROJECTS AND AGREEMENT WITH BARRICK**

Over A\$10 million has been spent on the Simuku and Nakru projects (refer to Figure 1) by Barrick. An agreement was signed in October 2009 with Barrick whereby exploration is to be managed and carried out by Barrick and allows them to spend A\$20 million to earn 72% of the tenements EL 1043 (Nakru), EL1077 (Simuku) and EL1445 (Talelumas) over eight years. Coppermoly Ltd retains 100% ownership until earn-in is complete.

Activities completed by Barrick during the quarter included collation, validation and integration of historic datasets, compilation and interpretation of 2010 exploration results, and planning and preparation for the 2011 field programme which have now commenced. Results from an Airborne LIDAR detailed topographic survey have been received. This data will help with geotechnical analysis to locate areas in the field away from potential landslip hazards. The data is currently being analysed by Coppermoly to help improve its geological framework within these three tenements.

Coppermoly has two tenements under application on New Britain Island (refer to Figure 1), which are not part of the agreement with Barrick. ELA1782 (Powell) covers 762 square kilometres and contains copper and gold prospects which include rock chip samples of 20 g/t and 10 g/t. Two Warden’s hearings have been completed at site and it is expected the tenement will be granted in 2011. The tenement application area is located between two tenements currently being explored by Ok Tedi Mining Limited in an agreement with Frontier Resources Ltd.

ELA 1813 (Fulleborn) covers 738 square kilometres to the south and east of the Nakru project on the south-eastern extent of the Kulu-Awit copper belt. The tenement contains a number of airborne geophysical anomalies, some of which are coincident with copper and gold geochemical anomalies. Petrographic work on rock float samples show abundant copper sulphides and alteration which indicate proximity to mineralising systems. Rock sample assay results include 10.7%, 2.91% and 1.1% copper. The tenement application is pending a Warden’s hearing to be set by the PNG Mineral Resources Authority.

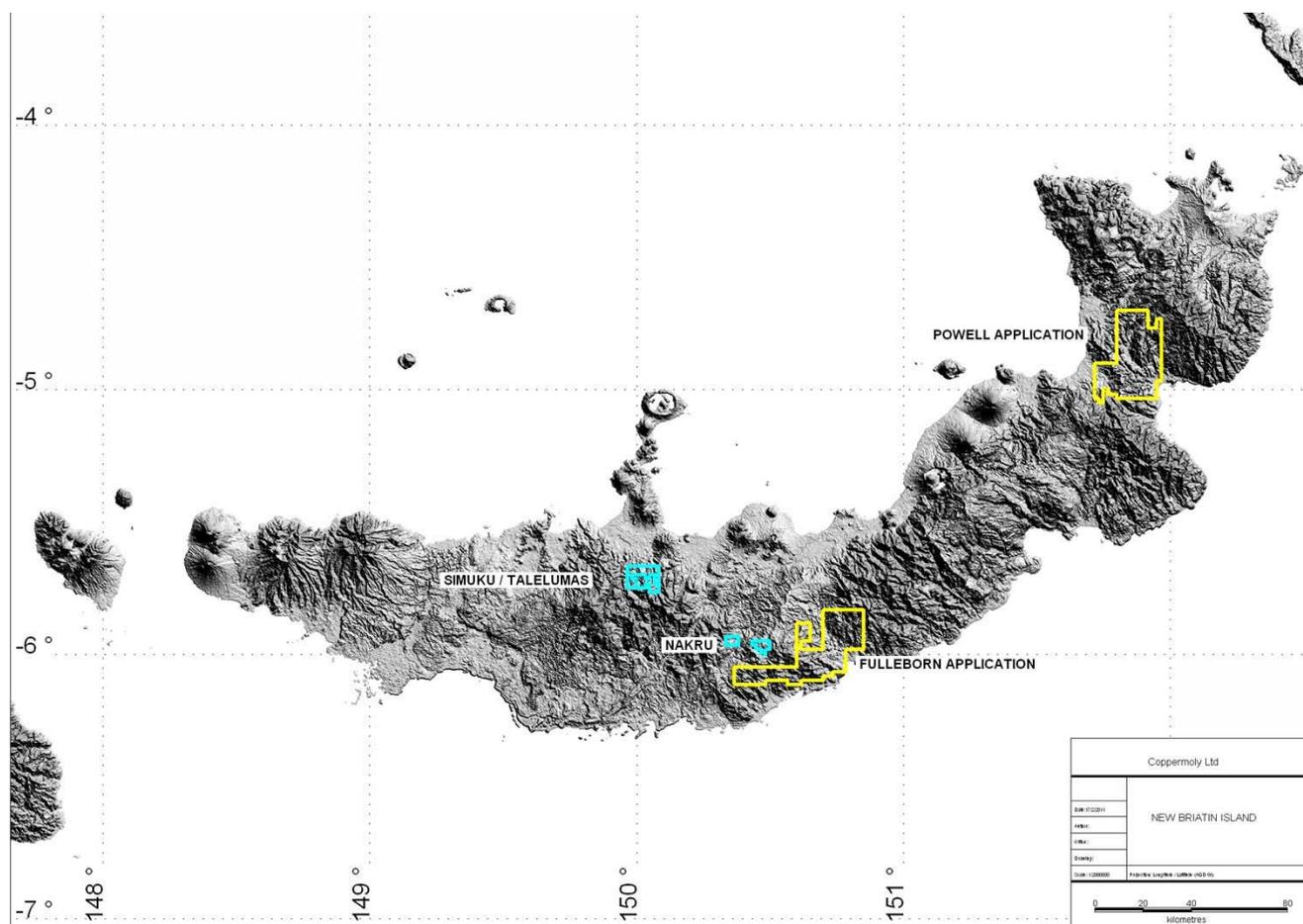


FIGURE 1: New Britain Island Showing Coppermoly Tenements

## 2.0 NAKRU PROJECT

The Mt.Nakru tenement (EL 1043) contains a number of discrete massive sulphide and breccia related copper-gold-zinc systems nested within the Nakru caldera (refer to Figure 2). Geochemical and geophysical anomalies led to the discovery of the Nakru-1 and Nakru-2 copper-gold-zinc systems.

Barrick recently completed a Three Dimensional Induced Polarisation (3D-IP) survey over several historical geochemical and airborne geophysical conductivity anomalies in order to define additional targets for follow-up (refer to Figure 2). IP anomalies have been noted over the Nakru-3 and Nakru-4 prospects. Coppermoly is currently merged and re-modelling this recent IP data with that collected by Coppermoly in 2008.

The Nakru-4 prospect has anomalous surface geochemistry from soil, rock chip, auger and wacker drilling samples coincident with a 300 metre by 100 metre IP chargeability anomaly at 150 metres depth. Field visits have confirmed that much of the historical sampling within the drainage is float shedding from the Nakru-1 copper deposit. Anomalous historical rock chip samples include 1.24 g/t gold and 4.38% copper in sample SG22766 and 3.45 g/t gold and 0.07% copper in samples SG22771.

Coppermoly has reviewed all drill assay data at Nakru-1 and Nakru-2 which has revealed several mineralisation and metal associations. The significance of these associations is two-fold. It should be remembered that only a few drill holes have tested those IP 'chargeability' anomalies at Nakru-1 and Nakru-2 so far, but the tenor of the metal grades obtained to date is highly encouraging. A summary of these metal associations is presented below, with examples quoted from several holes. It should not be forgotten that pervasive copper-gold mineralisation is found in all holes to date.

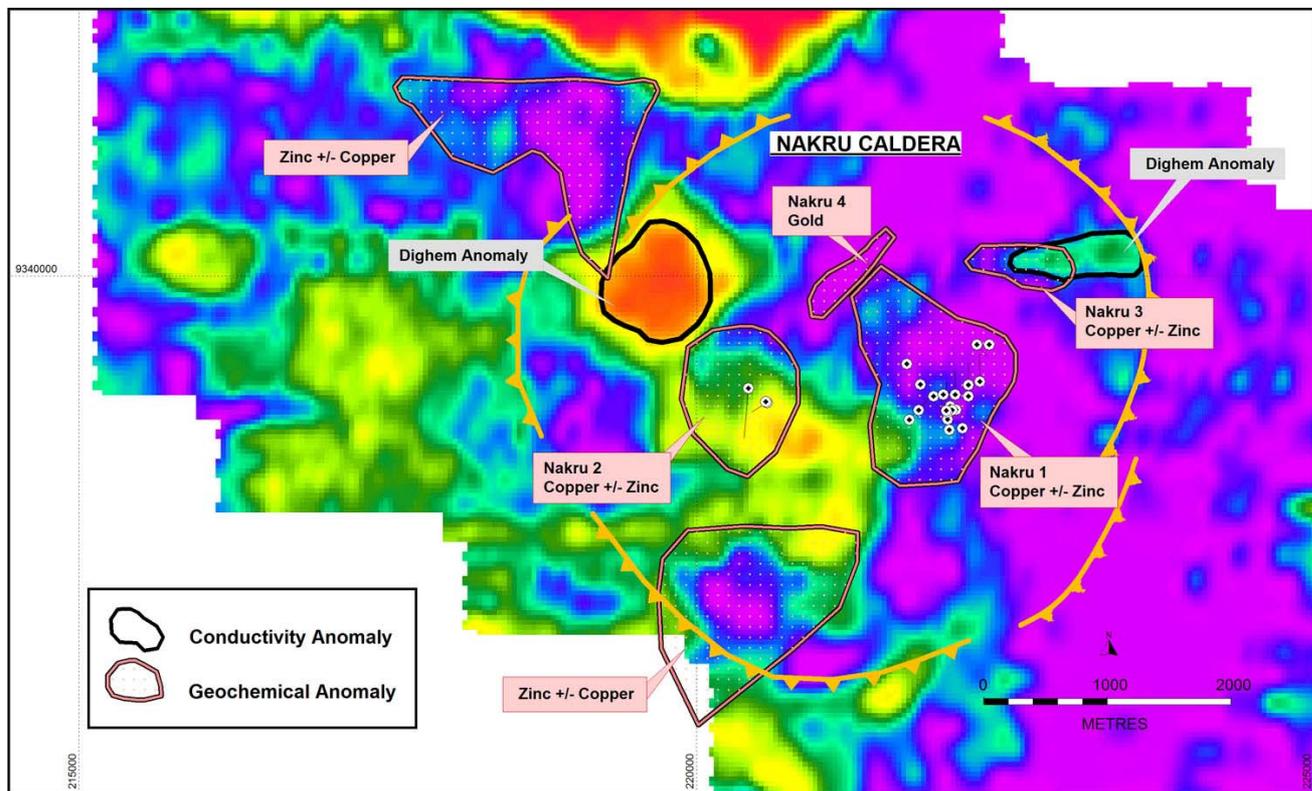


FIGURE 2: Historical Airborne Dighem Geophysical Image with Geochemical Targets

### **Nakru-1 Prospect**

During 2010, seven holes were drilled by Barrick into the Nakru-1 prospect for 2,646.5 metres. To date a total of 23 drill holes have been completed for a total of 4614.1 metres.

Results from the remaining two drillholes completed in 2010 demonstrate the continuity of copper and gold mineralisation to over 500 metres in strike length within a larger Induced Polarisation geophysical anomaly (refer to Figure 3). Mineralisation is open to the east and at vertical depth, confirming the significant size potential of the system.

Diamond drill hole BWNBDD0010 returned copper mineralisation to 331.9 metres depth with intersections including 89.7 metres grading 0.69% copper and 0.19 g/t gold from 84.3 metres depth and 28.5 metres grading 0.73% copper and 0.25 g/t gold from 185.6 metres depth (refer to Tables 1 and 2).

Drill hole BWNBDD0010 is approximately 200 metres west of BWNBDD0001 which had a previously reported intersection of 213.75 metres grading 0.92% copper and 0.33 g/t gold from 74.45 metres depth. Drillhole BWNBDD0009 occurs in between these two holes and intersected copper mineralisation to 341 metres depth with intercepts including 7.6 metres grading 1.14% copper from 85.7 metres depth (refer to Table 3).

A cross-section through drillholes BWNBDD0001 and BWNBDD0007 shows the nature of copper mineralisation which becomes more continuous near the centre of the mineralising system (refer to Figure 4).

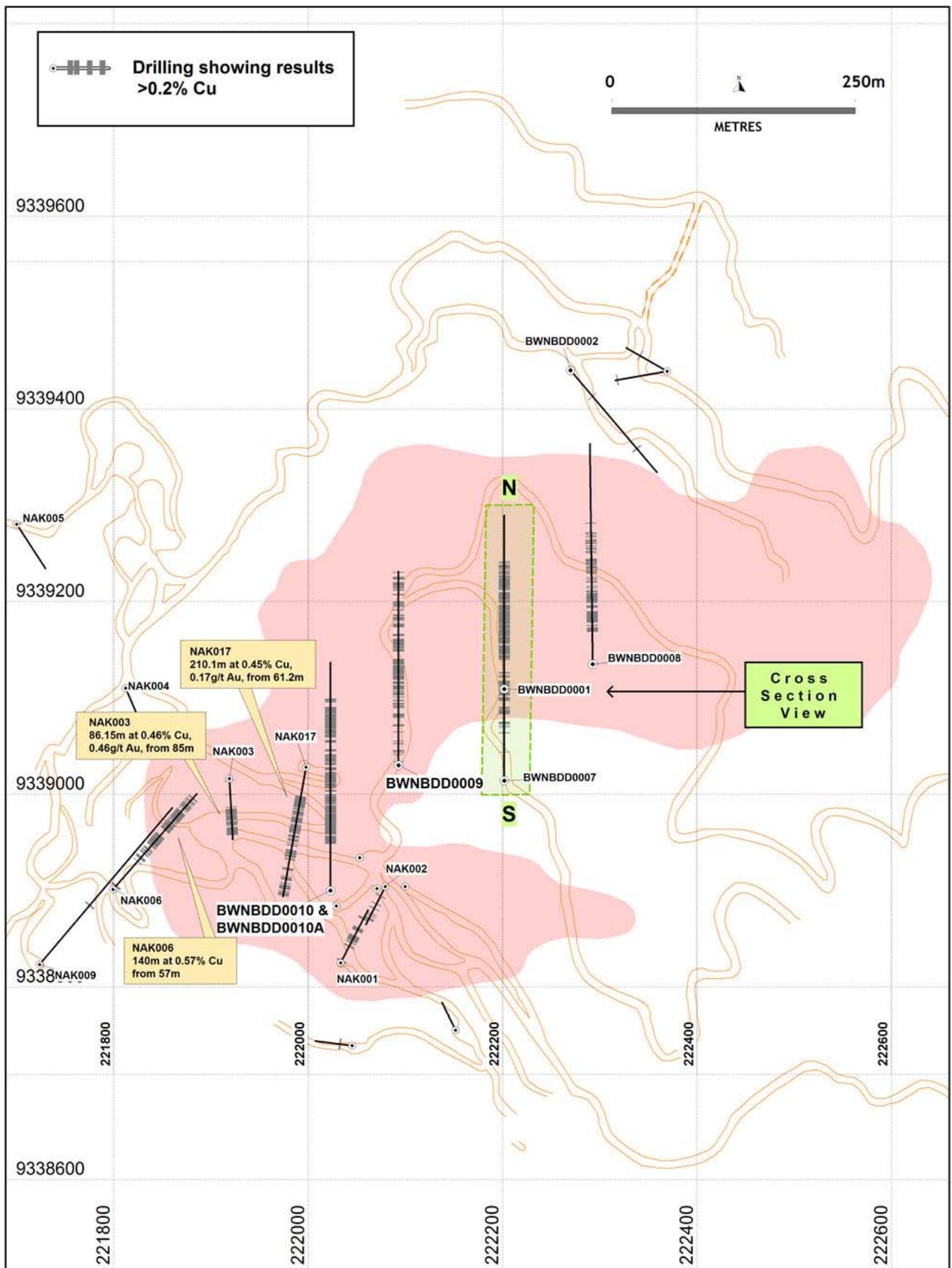


FIGURE 3: Nakru-1 Nominal Drill Trace with Outline of Geophysical Three Dimensional Induced Polarisation Anomaly at 100 metres Depth

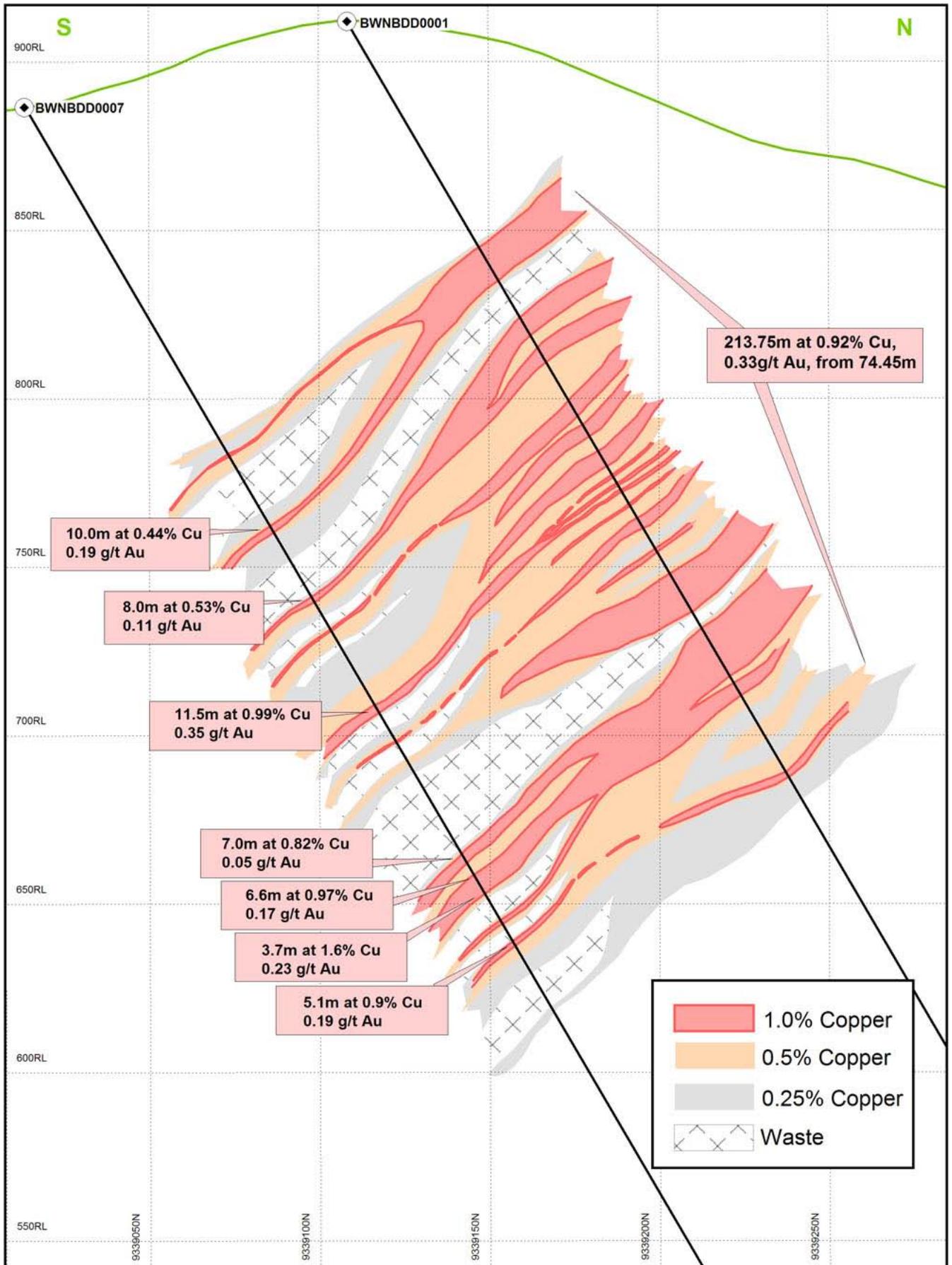


FIGURE 4: Mineralisation cross-section of BWNBDD0009 and BWNBDD0007

Table 1: Mineralised Intercepts in diamond core hole BWNBDD0010

Mineralisation Type	Depth From (metres)	Depth To (metres)	Intercept Width (metres)	Copper (%)	Gold (g/t)	Cut-off
Oxide Gold	0.0	14.9	14.9	0.01	0.20	0.1 g/t Au
Oxide Gold	38.8	45.0	6.2	0.06	0.14	0.1 g/t Au
Oxide Gold	49.0	53.0	4.0	0.14	0.13	0.1 g/t Au
Oxide Gold	73.0	84.3	11.3	0.07	0.10	0.1 g/t Au
Sulphide Zone	84.3	174.0	89.7	0.69	0.19	0.2% Cu
Sulphide Zone	179.0	181.7	2.7	0.44	0.06	0.2% Cu
Sulphide Zone	185.6	214.1	28.5	0.73	0.25	0.2% Cu
Sulphide Zone	217.9	223.1	5.2	0.49	0.08	0.2% Cu
Sulphide Zone	226.5	247.0	20.5	0.38	0.22	0.2% Cu
Sulphide Zone	251.9	255.4	3.5	0.37	0.12	0.2% Cu
Sulphide Zone	267.9	272.0	4.1	0.34	0.08	0.2% Cu
Sulphide Zone	277.0	331.9	54.9	0.45	0.03	0.2% Cu

Table 2: Mineralised Intercepts in diamond core hole BWNBDD0010A (\*From 294.8m depth)

Depth From (metres)	Depth To (metres)	Intercept Width (metres)	Copper (%)	Gold (g/t)	Cut-off
294.8	331	36.2	0.40	0.04	0.2% Cu
341.3	347	5.7	0.36	0.01	0.2% Cu

\* Drillhole BWNBDD0010A was the result of an unintended deflection from BWNBDD0010.

Table 3: Mineralised Intercepts in diamond core hole BWNBDD0009

Depth From (metres)	Depth To (metres)	Intercept Width (metres)	Copper (%)	Gold (g/t)	Cut-off
23.0	24.8	1.8	0.34	0.04	0.2% Cu
38.0	44.0	6.0	0.2	0.00	0.2% Cu
71.0	73.9	2.9	0.28	-	0.2% Cu
85.7	93.3	7.6	1.14	0.05	0.2% Cu
104.0	113.0	9.0	0.44	0.08	0.2% Cu
116.0	118.5	2.5	1.11	0.03	0.2% Cu
127.0	151.9	24.9	0.57	0.09	0.2% Cu
154.8	192.0	37.2	0.54	0.28	0.2% Cu
206.0	229.1	23.1	0.58	0.31	0.2% Cu
234.1	237.9	3.8	0.70	0.09	0.2% Cu
250.0	256.2	6.2	0.97	1.00	0.2% Cu
262.0	273.0	11.0	0.23	0.16	0.2% Cu
280.4	282.0	1.6	0.24	0.04	0.2% Cu
286.0	296.7	10.7	0.34	0.11	0.2% Cu
308.0	310.0	2.0	0.54	0.04	0.2% Cu
316.1	332.0	15.9	0.31	0.03	0.2% Cu
336.4	341.0	4.6	0.45	0.08	0.2% Cu

Table 4: Drill Collar Table

Hole	Easting	Northing	Azimuth (deg)	Dip (deg)	Depth
BWNBDD0009	222093	9339030	0	-55	351
BWNBDD0010	222023	9338900	0	-60	341.9
BWNBDD0010A	222023	9338900	0	-60	412.8

## Summary of Mineralisation Styles at Nakru-1:

### A. Supergene Copper Zone

The best intersection to date in the supergene copper zone was encountered in drill hole BWNBDD0001 where 34.35m at 1.96% copper and 0.17g/t gold was intersected between 74.45m and 108.8m down hole. Most drill holes collared within the IP 'chargeability' anomaly have encountered supergene copper mineralisation.

### B. Primary Copper Gold Zone

Beneath the supergene copper zone in hole BWNBDD001 a zone of primary copper-gold mineralisation is hosted in rhyolitic breccias and hydrothermal breccias. A composite interval of approximately 145m at 0.84% copper and 0.4g/t gold was intersected between 108m and 288m down hole, which excluded values attributed to post mineralisation dykes.

### C. High Grade Gold Copper Telluride Vein

The eastern most hole BWNBDD008 encountered a 1m (99m – 100m down hole) interval of 42g/t gold, 4.64% copper, 20g/t silver and 0.28% tellurium.

### D. High Grade Silver Vein

In hole BWNDDD009 an intercept of 0.7m (281.3m – 282m down hole) grading 432 g/t silver, 943 ppm molybdenum and 1,340ppm niobium was encountered in strongly altered rhyolitic breccias. This association was also encountered at Nakru-2 in the one deep hole by Barrick which partly tested the 'chargeability' anomaly.

## Summary of Mineralisation Styles at Nakru-2:

### A. Massive Sulphide Zone

The initial two drill holes drilled by Coppermoly encountered a shallow massive sulphide lens at approximately 30m depth. Hole NAK02-01 intersected 6.7m at 3.80% copper, 1.66% zinc, 9.5g/t silver and 0.19g/t gold between 30.3m and 37m down hole. Petrographic and geologic studies indicate that the massive sulphide was probably deposited on the sea floor.

### B. Primary Copper Zone

Beneath the massive sulphide zone, stringer veinlets of chalcopyrite mineralisation were found to be hosted in rhyolitic breccias in both Coppermoly drill holes. The Barrick drill hole (BWNBDD0003), testing the centre of the IP 'chargeability' anomaly, also encountered this style of mineralisation, intersecting 64m at 0.59% copper between 141m and 205m down hole.

### C. High Grade Zinc and Polymetallic Mineralisation

In drill hole BWNBDD0003, between 290.1m and 295m, a zone assaying 13.6% zinc, 0.84% copper, 24g/t silver and 0.41g/t gold was encountered. Although this was the first time this style of metal association has been encountered in drilling, rock float in drainage north-west and north-east of the drill hole assayed by previous explorers had identified a similar metal association.

### D. High Grade Silver Vein

A similar metal association to that encountered at Nakru 1 in drill hole BWNBDD009 was intersected in hole BWNBDD003. At 542m down hole a 0.9m intercept of 474g/t silver, 258ppm molybdenum and 433ppm niobium was found. The presence of this vein association at two prospects 1 kilometre apart indicates that it is probably extensive over a significant area.

### **3.0 SIMUKU PROJECT**

The Simuku project is within a one hour drive by 4WD vehicle from existing infrastructure, including a deep water port which will be essential for future development. It is host to an Inferred Resource of 200 million tonnes grading 0.36% copper. It contains 700,000 tonnes of copper, 12,000 tonnes of molybdenum, 12 tonnes of gold and 391 tonnes of silver (or 1.5 billion pounds of copper, 26 million pounds of molybdenum, 0.4 million ounces of gold and 13 million ounces of silver).

Three drillholes have been completed by Barrick at Simuku for 1,635.7 metres. Including historical drilling, 34 drill holes have been completed at Simuku for a total of 7,656.7 metres. Field activities are currently underway to begin drilling in the northern Simuku area to test for higher grades in the potassic zone of primary copper mineralisation at the Nayam prospect (refer to Figure 5). At Nayam, drilling intercepts of 93 metres grading 0.59% copper include an upper zone of secondary enrichment of 18 metres grading 1% copper from 8 metres depth.

Reconnaissance mapping by Barrick at Simuku helped define structural information which show the majority of structures to be dipping east-southeast with other directions of south-southeast and northeast.

The Kulu prospect is 5.5 kilometres southeast of the Simuku Resource (refer to Figure 6) and rock chip sampling from the 2010 work programme confirmed anomalous grades of copper over an area of 800 metres by 600 metres (refer to Figure 7). Over 200 rock chip samples taken during November 2010 had average grades of 0.11% Copper ranging from 123 to 6890 ppm. These results are consistent with historical surface sampling and drilling results.

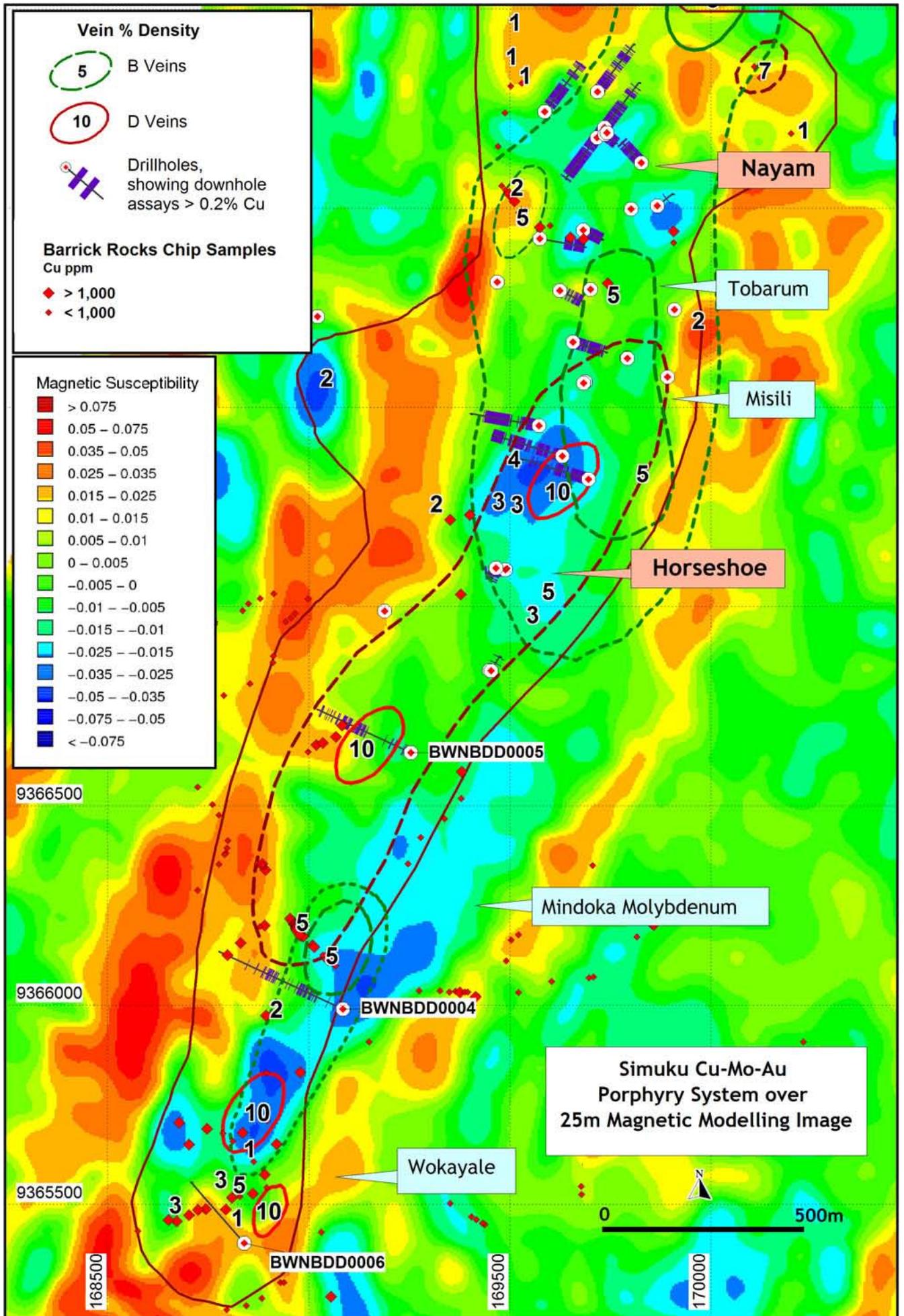


FIGURE 5: Simuku Vein Density Contours

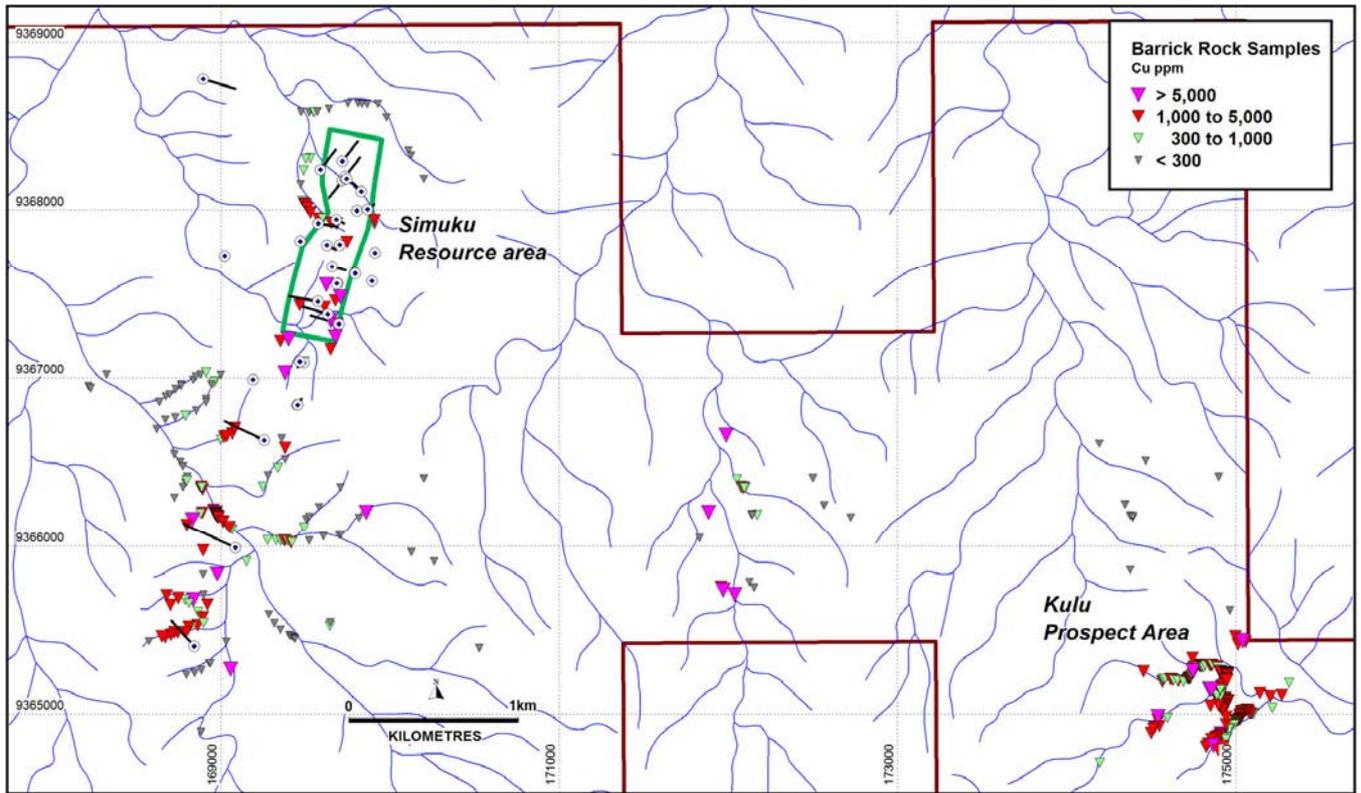


FIGURE 6: Simuku Tenement Showing Prospects and Rock Sampling Results

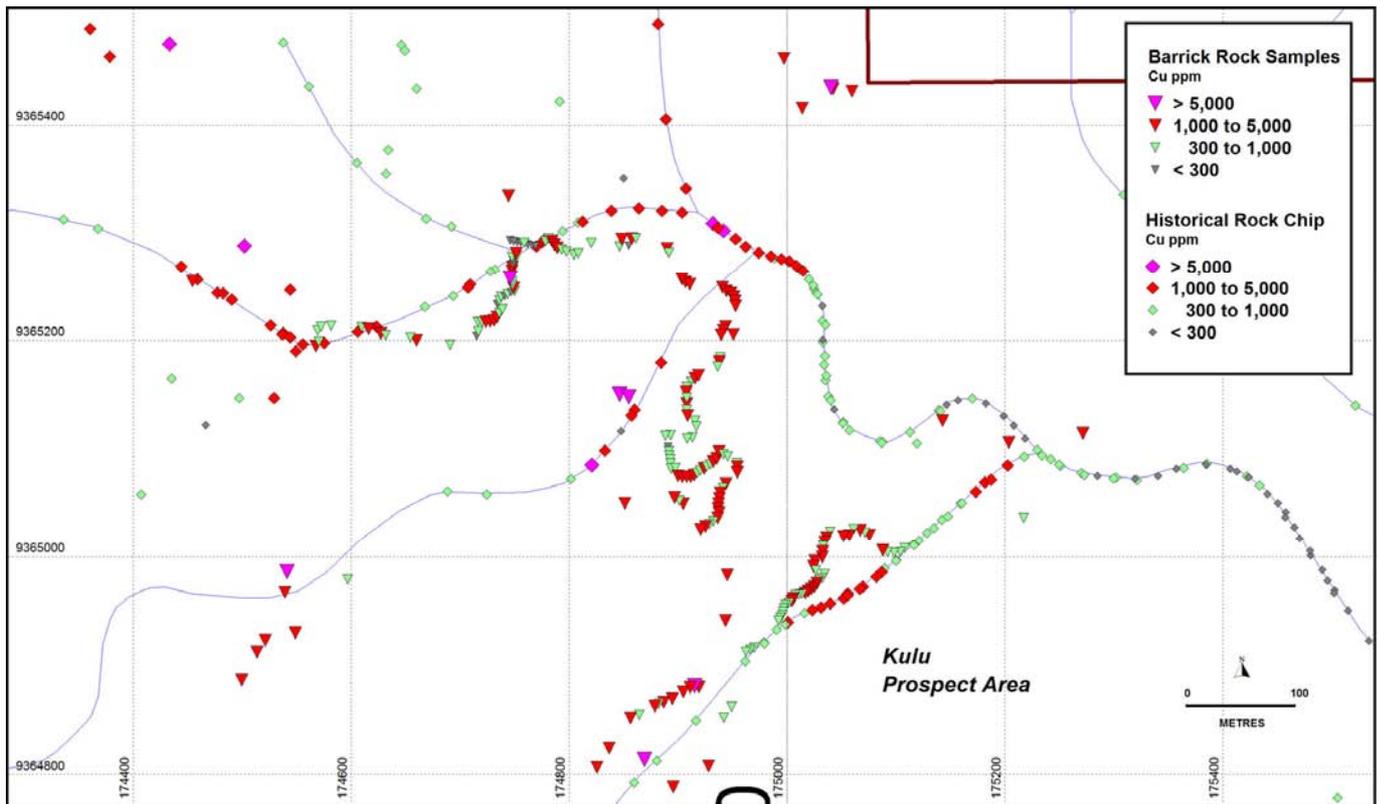


FIGURE 7: Kulu Prospect Rock Chip Sampling Results

On behalf of the board,

Peter Swiridiuk  
**MANAGING DIRECTOR**

For further information please contact Peter Swiridiuk or Maurice Gannon on (07) 5592 1001 or visit [www.coppermoly.com.au](http://www.coppermoly.com.au),

The information in this report that relates to Exploration Results and is based on information compiled by Peter Swiridiuk, who is a Member of the Australian Institute of Geoscientists. Peter Swiridiuk is a consultant to Coppermoly Ltd and employed by Aimex Geophysics. Peter Swiridiuk 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'. Peter Swiridiuk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Notes:

- All stated intersections are weighted assay averages ( $[\text{Sum of each total interval} \times \text{grade}] / \text{Total length of intersection}$ ).
- Drillhole samples from drillholes were transported to the camp site then to the town of Kimbe where they were logged, orientated and sampled between 1m and 2m intervals from core split by saw. The split samples are then freighted to either Intertek in Lae (PNG) for sample preparation. Samples are dried to 106 degrees C and crushed to < 2 mm. Samples greater than 2kg are rifle split down to 1.5kg and pulverised to 75 microns. The final 300g sized pulp samples are then sent to Intertek laboratories in Jakarta for geochemical analysis. Intertek analyse for gold using a 50g Fire Assay with Atomic Absorption Spectroscopy finish. Other elements are assayed with ICPAES Finish. Copper values greater than 0.5% are re-assayed. Intertek laboratories have an ISO 17025 accreditation. Unused half core is stored in sheltered premises in the town of Kimbe.
- Quality control and quality assurance checks on sampling and assaying quality are satisfactory.
- BWNBDD (Barrick West New Britain Diamond Drillhole) Series Drill Core is PQ, HQ and NQ in size with core recovery predominantly greater than 90%.
- Co-ordinates are given in UTM Zone 56, AGD66 Datum.
- Mineralised intersections are quoted as down hole widths.

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