

## **ASX Announcement**

**23<sup>rd</sup> January 2013**

**ASX Code: COY**

### **DECEMBER 2012 Quarterly Report**

#### **HIGHLIGHTS**

- ✓ Makmak tenement rock sampling results and petrology show iron and IOCG styles of mineralisation
- ✓ Makmak geophysical modelling provides drill ready targets for iron and IOCG type deposits
- ✓ Drilling at Simuku and Nakru have been completed by Barrick
- ✓ A period of exclusivity with Barrick to restore 100% ownership of the West New Britain Project during November and December 2012 has now ended. Barrick will continue with its divestment process.
- ✓ Resignation of Non-Executive directors Dal Brynelsen and Ces lewago
- ✓ EL 1077 (Simuku) granted for an additional two years to 28<sup>th</sup> November 2013

Queensland-based explorer Coppermoly Limited (ASX: COY) is pleased to report its activities at the Company's copper-gold projects on New British Island, Papua New Guinea (PNG) for the quarter ending 31 December 2012.

#### **MARCH QUARTER PLANS**

Following the recently completed small private placement and the issue of convertible notes and the successful preliminary exploration programme at the Makmak tenement, additional mapping, rock sampling, trenching and geophysics will be planned ahead of a drilling programme.

Barrick (PNG Exploration) Ltd ("Barrick"), are continuing their plans to divest their 72% interest in the West New Britain project. The period of exclusive negotiations with Coppermoly has now ended.

Barrick have completed their drilling and exploration on the West New Britain project during the fourth quarter of 2012. Results from two drill holes at Simuku have been reported. Assay results from the one drill hole completed at Nakru-01 are pending. Rock sampling results from the Talelumas tenement are pending.

#### **ABOUT COPPERMOLY**

Coppermoly is an exploration company which is focussed entirely on the island of New Britain in Papua New Guinea where it holds four exploration licences and an additional three under application. These licences cover copper, gold, silver, zinc, molybdenum and iron mineralisation and resources. The four current tenements at Simuku, Talelumas, Nakru and Makmak cover 450 square kilometres.

These projects occur within the Kulu-Awit copper-gold belt and are accessible by 4WD vehicle and close to existing infrastructure including a hospital, grocery stores, chemist, hardware supplies, mechanical shops and an operating deep water port at Kimbe, the Provincial capital of West New Britain (refer to Figure 1).

After listing on the ASX in 2008, Coppermoly completed an extensive drilling and exploration programme within the Simuku (EL 1077), surrounding Talelumas (EL 1445) and Nakru (EL1045) tenements. As a result of the drilling, Coppermoly defined its maiden Inferred Resource at the Simuku porphyry copper system of:

- 200 million tonnes grading 0.47% Cu.Eq\*\* (or 0.36% copper + 61 ppm molybdenum + 0.06 g/t gold + 2 g/t silver), using a cut-off grade of 0.2% Cu.Eq\*\*.

Since signing a Letter Agreement with Barrick in October 2009, Barrick has spent over \$24.6 million managing the exploration and drilling on these three properties. As a result of this additional drilling at the Nakru tenement, Coppermoly was able to construct a geological framework for Naku-01. In July 2012, independent consultants Golder Associates calculated an Inferred Mineral Resource for the Nakru-01 deposit (within EL1043 - Nakru) of

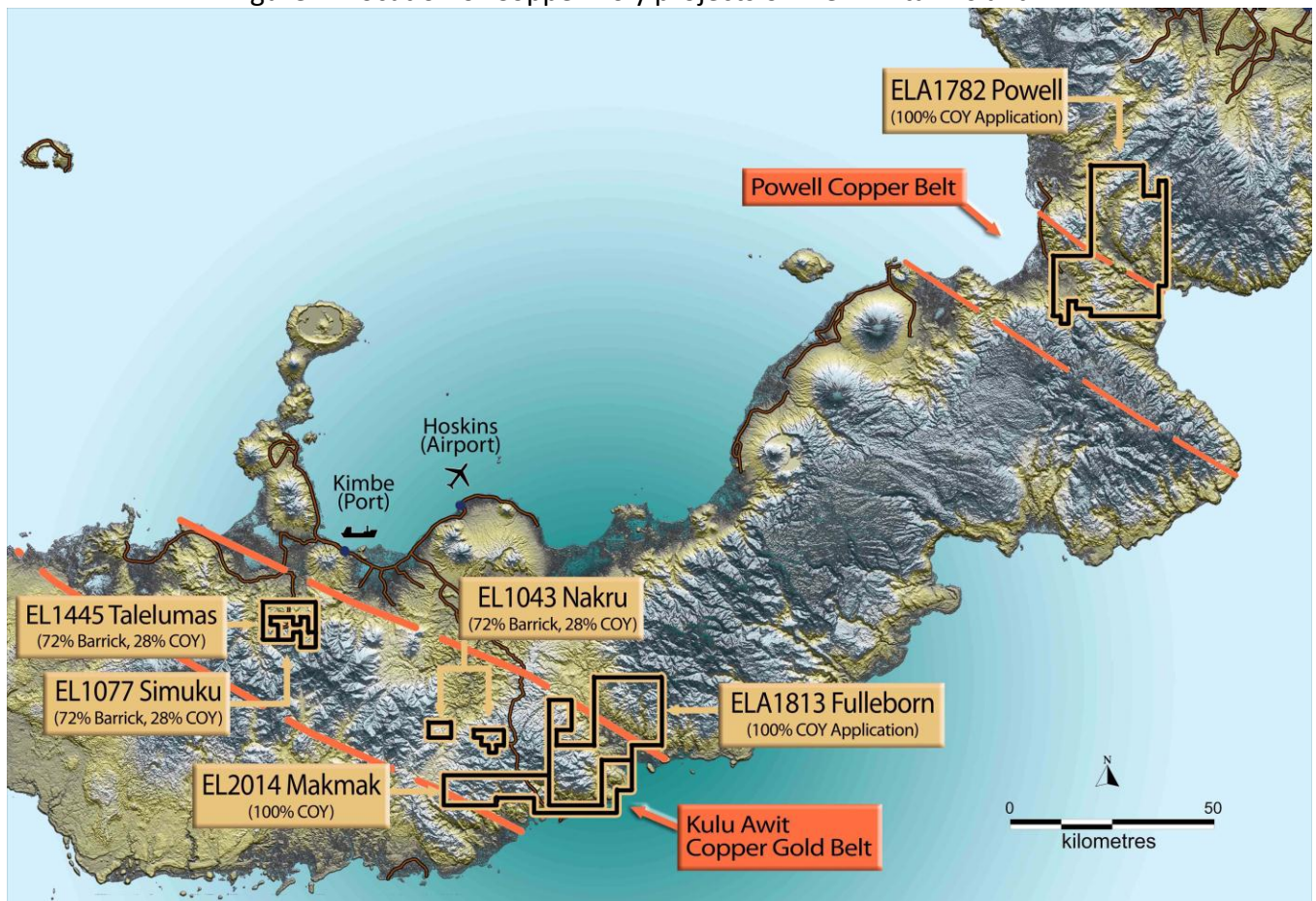
- 38.4 Mt at 0.82% copper equivalent\* (or 0.61% copper + 0.28 g/t gold + 1.80 g/t silver), using a cut-off grade of 0.2% copper.

In September 2012, results from a Conceptual Mining Study showed that the development of the Nakru-01 Inferred Mineral Resource could be cash flow positive within two years of commencement of production with a Net Present Value of US\$291 million (based on 100% ownership, copper price of \$3.34/lb, 10% discount factor and 90% mill recovery after royalties but before company tax).

Following the recent drilling completed in the fourth quarter of 2012, Barrick will continue to seek divestment of their interest in these tenements.

EL2014 (Makmak) was recently granted and is 100% held by Coppermoly covering 280 km<sup>2</sup>. Two other tenements are under application by Coppermoly 100% and include ELA1782 (Powell) and ELA1813 (Fulleborn) which combined cover 1306 square kilometres.

Figure 1: Location of Coppermoly projects on New Britain island



## **SIMUKU PROJECT (EL 1077) – 28% Coppermoly**

Barrick commenced drilling at the Nayam Prospect (refer to Figure 2) in September 2012. A second hole at the Missile Prospect was completed to 288 metres depth (refer to Table 1). Results for these two drillholes were reported by Barrick using a cut-off grade of > 10m grading 0.1% copper (refer to Table 2).

**Table 1: Drill Collar Table** (Datum AGD66, Zone 56)

Hole id	Prospect	Easting	Northing	Azimuth (deg)	Dip (deg)	Depth (m)
BWNBDD0019	NAYAM (Simuku)	169971	9368205	300.2	-61.3	314.9
BWNBDD0020	MISILE (Simuku)	169460	9367460	298	-61	288
BWNBDD0021	NAKRU-01	221907	9338963	350	-60	220

**Table 2: Drill hole results for recent drilling at Nayam and Missile**

Hole Id	Depth From	Interval	Cu (%)	Au (g/t)	Mo (ppm)
BWNBDD0019/A	238	14	0.13	0.02	49
BWNBDD0019/A	258	19	0.11	0.02	16
BWNBDD0020	8	40	0.24	0.06	87
BWNBDD0020	59	33	0.30	0.04	31
BWNBDD0020	98	11	0.12	0.02	6

BWNBDD0019 intersected a narrow porphyry unit and results were reported as of low geochemical tenor. Results from BWNBDD0020 extended the supergene copper mineralisation to the south and southwest (refer to Figure 2).

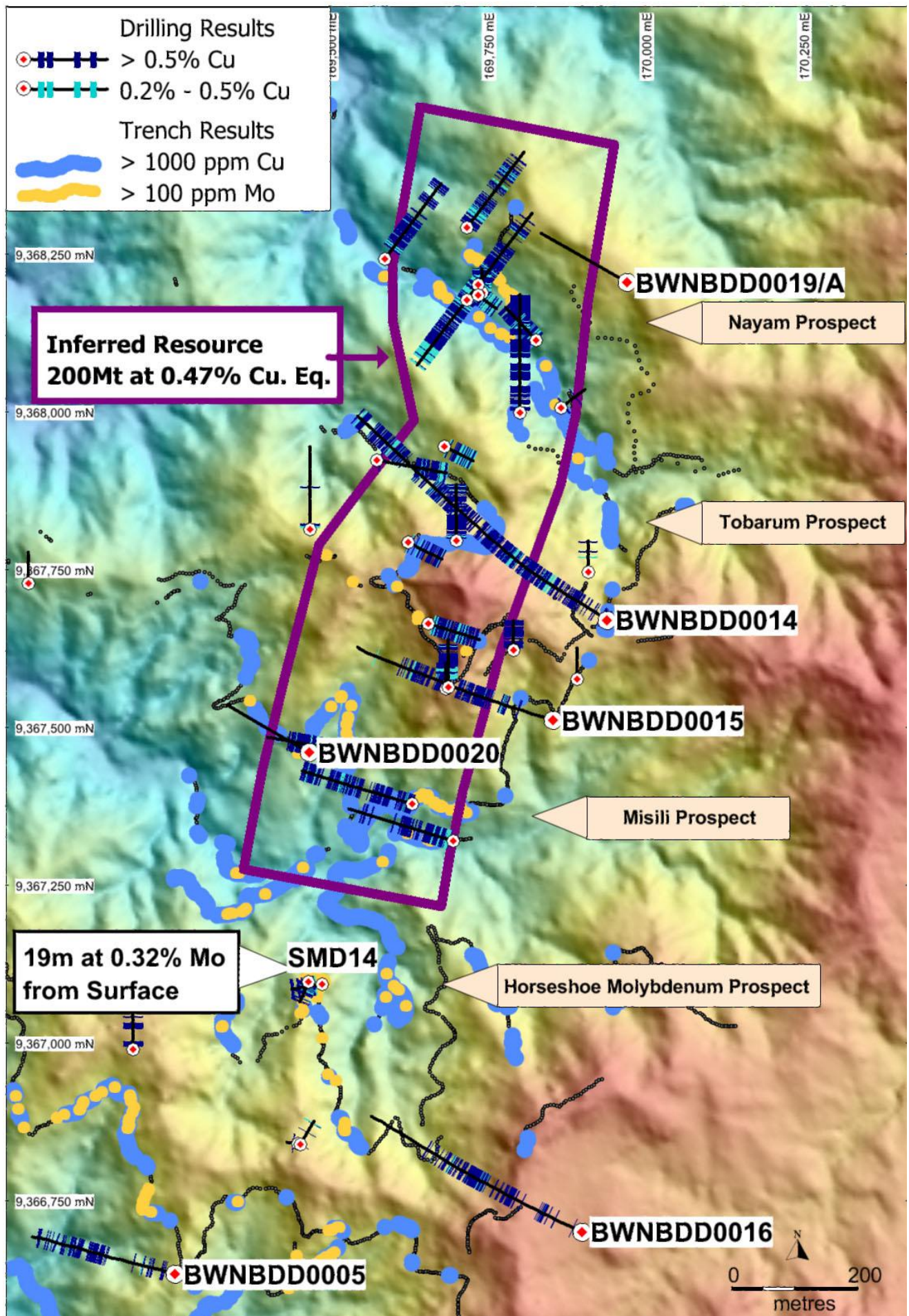
During 2010 and 2011, Barrick drilled six holes at the Simuku porphyry system for an average depth of 700m - totalling 4,227m. Including 16 historical drill holes, 15 drill holes completed by Coppermoly and 8 drill holes completed by Barrick, a total of 39 drillholes have been completed within the Simuku porphyry system for a total of 10,851 metres. Barrick also completed one drillhole at the Kulu copper prospect for 617.2 metres.

The Simuku porphyry system has an Inferred Resource of 200 million tonnes grading 0.47% Cu.Eq (or 0.36% copper + 61 ppm molybdenum + 0.06 g/t gold + 2 g/t silver), using a cut-off grade of 0.2% Cu.Eq\*\*. The drilling by Barrick over the past three years has demonstrated continuity of mineralisation at over 500m depth beneath the resource and to over 1500 metres to the south-southwest of the Inferred Resource.

EL 1077 was granted renewal by the Mineral Resources Authority for an additional two years to 28<sup>th</sup> November 2013.



Figure 2: Simuku resource outline showing the latest drillholes BWNBDD0019/A and 20 completed by Barrick on an airborne Lidar digital topographic image





## **TALELUMAS PROJECT (EL 1445) – 28% Coppermoly**

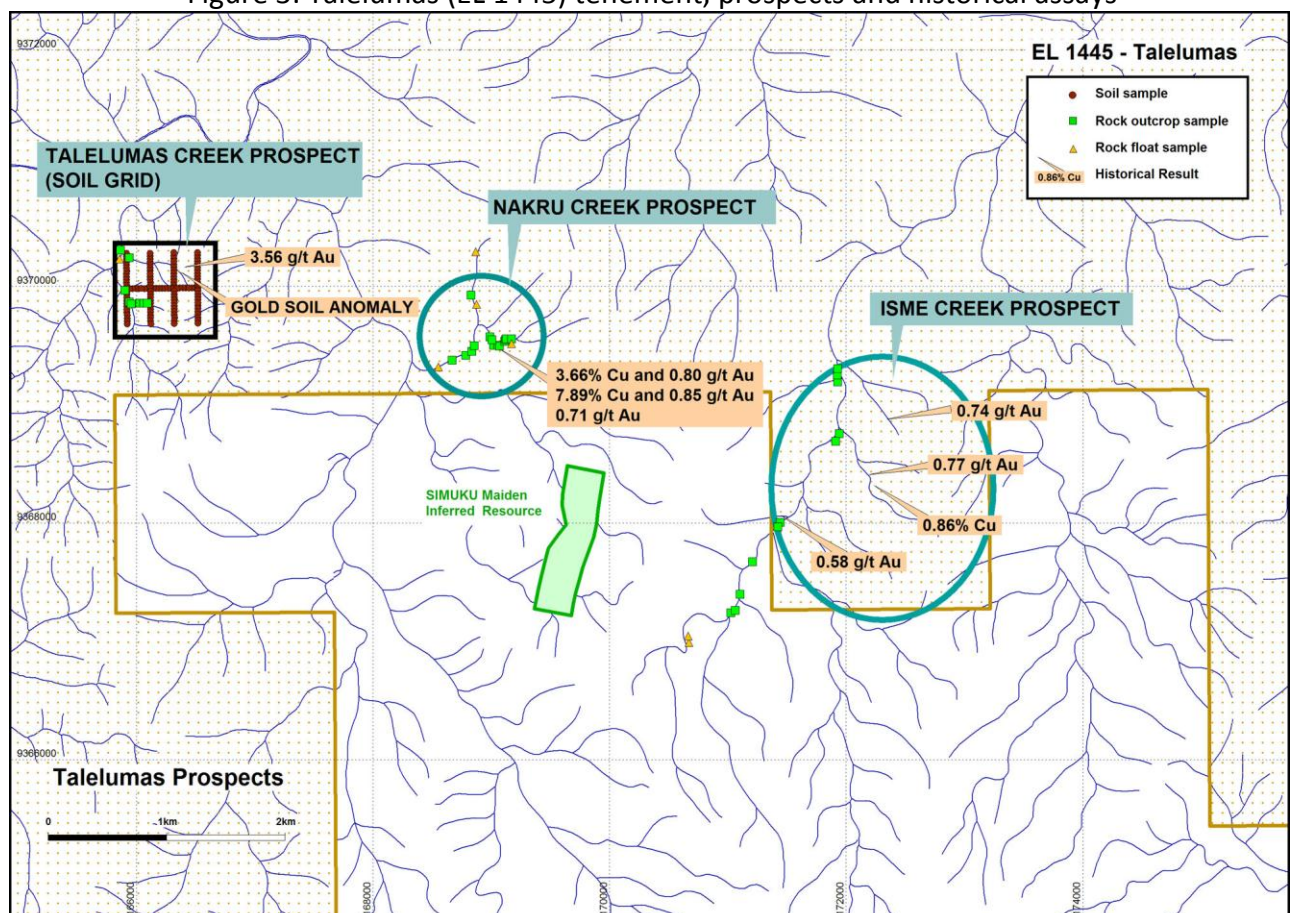
Barrick recently completed field work at the Mt. Misusu (refer to Nakru Creek prospect in Figure 3) and the Talelumas prospects.

Reconnaissance mapping at the Talelumas prospect confirmed the presence of thin epithermal style veining but did not locate significant mineralisation. Geochemical results have been reported by Barrick as of low tenor and do not indicate any significant mineralisation warranting further follow-up.

Mapping and surface sampling was carried out at the Mt. Misusu Prospect which included the collection of 57 rock chip samples and 13 stream sediment samples. The area is underlain by volcanics, mainly andesites with minor basalts and volcanoclastics, with associated intrusives, including micro-diorite porphyry, feldspar porphyry, hornblende-feldspar porphyry and diorite units.

Stockwork veining was mapped with the micro-diorite porphyry units having the highest vein density with 40-70veins/metre at 10-20% volume and the feldspar porphyry units contain 5-15veins/metre at 5% volume. Laminated quartz-magnetite veins are the most common vein and are cross-cut by later porphyry B-veins. Chlorite-sericite alteration is associated with the micro-diorite porphyry and phyllic alteration is associated with the feldspar porphyry. Phyllic alteration is strongest at higher relative elevations and is widespread in the central ridge area. Propylitic alteration is spatially associated with the volcanics. Chalcopyrite, up to 0.5%, occurs in veins and as disseminations in the chlorite-sericite altered micro-diorite porphyry with up to 0.7% pyrite. All assay results are pending.

Figure 3: Talelumas (EL 1445) tenement, prospects and historical assays



## **NAKRU PROJECT (EL 1043) – 28% Coppermoly**

During 2010 and 2011, Barrick drilled twelve diamond core holes within the Nakru tenement for an average depth of 406m – totalling 4872.9m. During December 2012, Barrick completed one drillhole (BWNBDD0021) at Nakru-01 for 220 metres (refer to Table 1). The hole was designed to extend the known mineralisation intersected in NAK003 (refer to Figure 3) and intersected polymict breccia with cross-cutting andesite dykes to the end of hole. Minor copper mineralisation was reported by Barrick. Assay results are pending.







Figure 5: Makmak targets on airborne geophysical magnetics image (TMI)

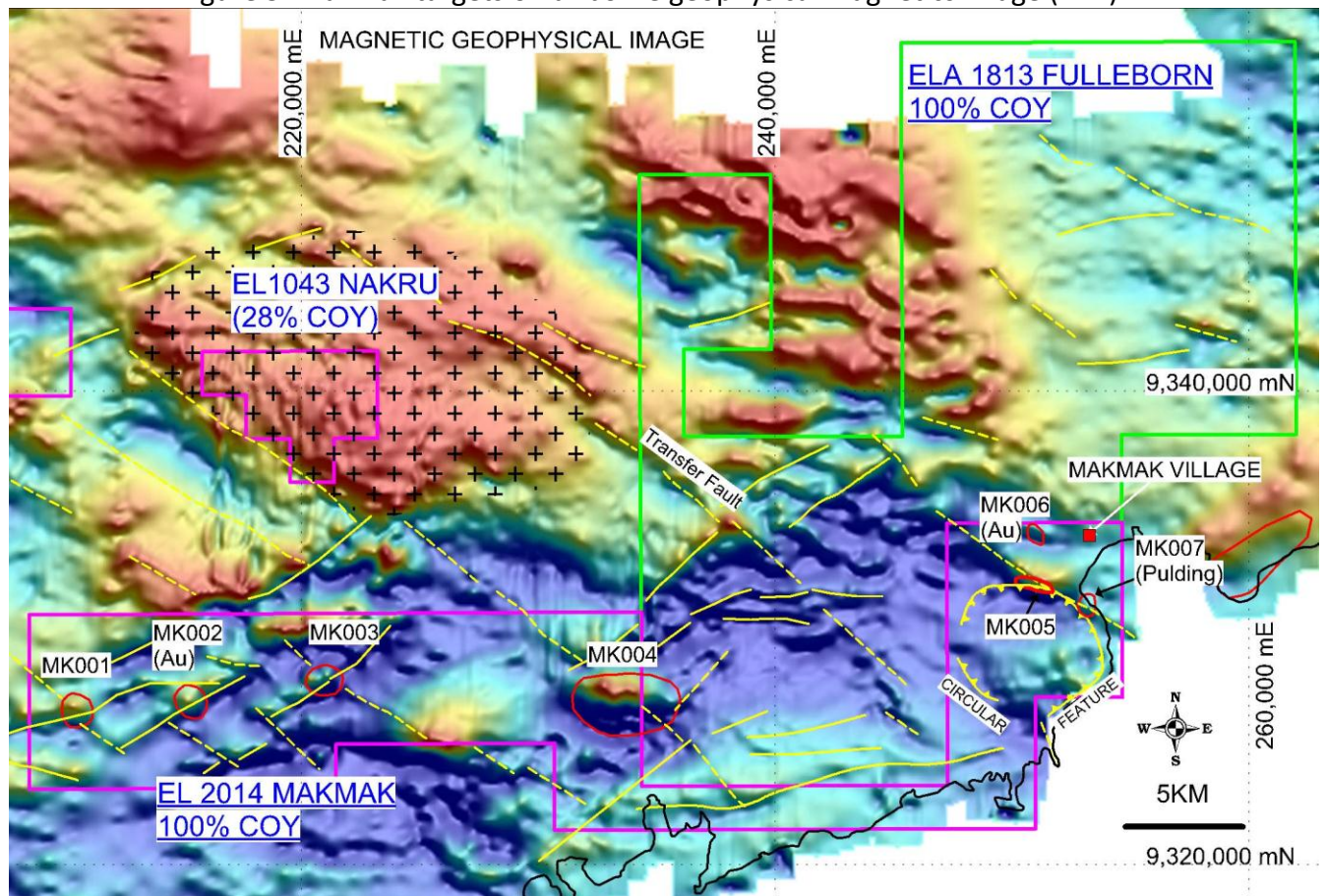


Photo 1: Tourmaline rich rock (Sample 5021) taken from the Puling prospect

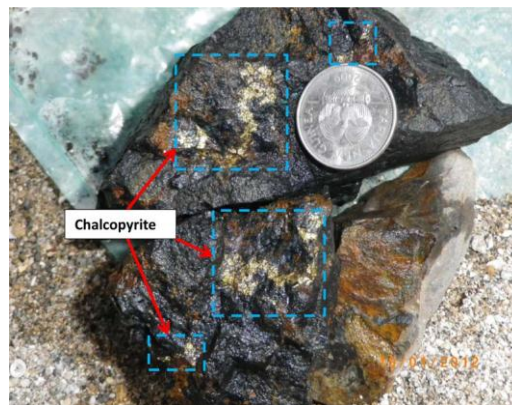
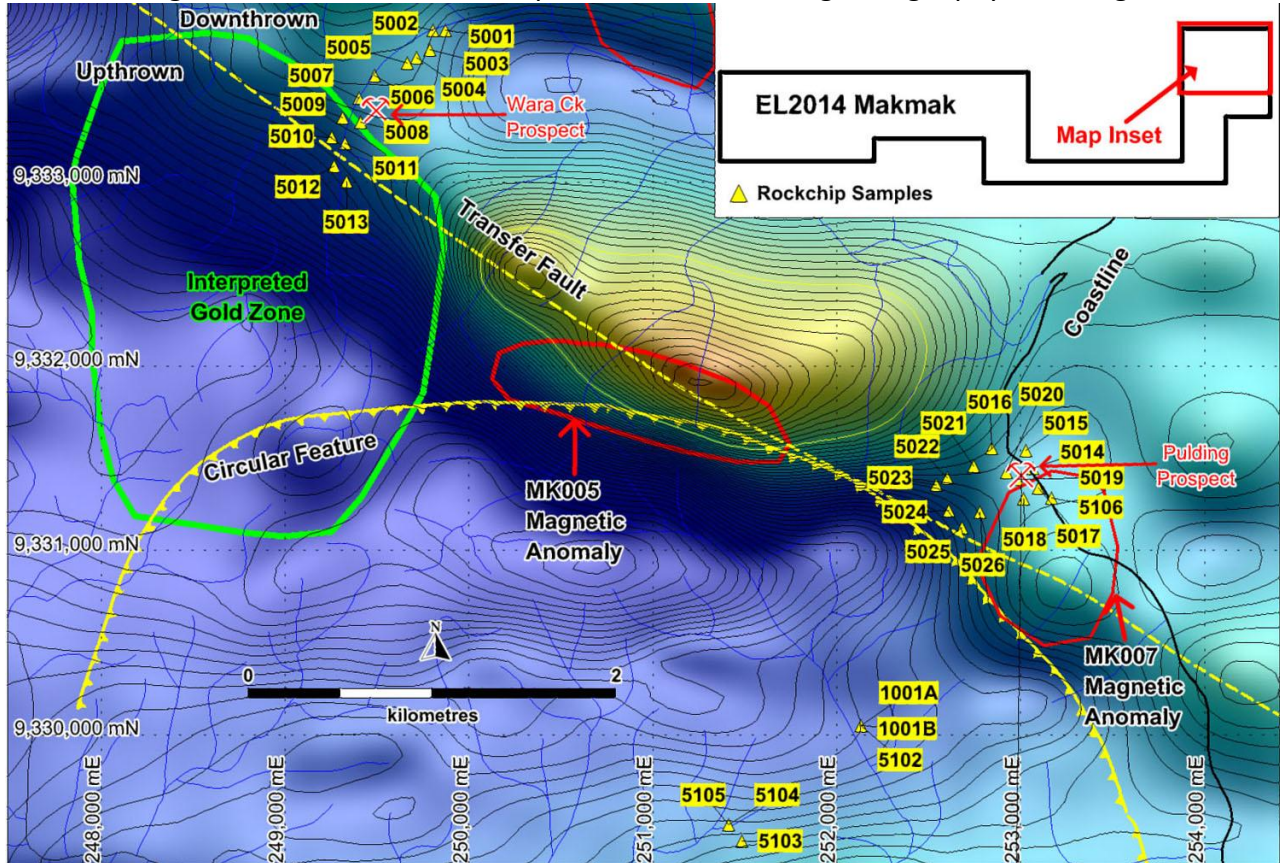


Photo 2: Gold nuggets panned from creeks in the “Interpreted Gold Zone”





Figure 6: Location of rock samples with airborne magnetic geophysical image



### PULDING PROSPECT

At the Pulding copper and molybdenum prospect (refer to Figure 6), laboratory assay results of the rock samples collected during October 2012 include (refer to Table 3):

- Sample 5022: 1.27% Cu + 183 ppm Mo,
- Sample 5024: 1.33% Cu + 440 ppm Mo,
- Sample 5025: 2.39% Cu + 223 ppm Mo,
- Sample 5106: 1.98% Cu + 503 ppm Mo

A detailed analysis of rock specimens taken from outcrop (Photo 3) and float (Photo 4) demonstrate styles of alteration and mineralisation analogous to IOCG deposits.

Geological consultant Stan Yeaman described the results of the sampling programme as follows:

*“These results are from rock-chip character samples, which are not representative linear channel samples, but were taken to characterise the silicate alteration with the chalcopyrite mineralisation over a significant area.*

*There are multiple veins of this style of mineralisation within the approximately 400 metres width examined, but these samples do not represent average grade over that width.*

*I think it would be legitimate to say that this style of mineralisation is comparable to the IOCG mineralisation mined in Chile and Peru for iron ore and copper”.*

Results from samples 50101 to 5101 within the circular feature (see Figure 6) were all insignificant.



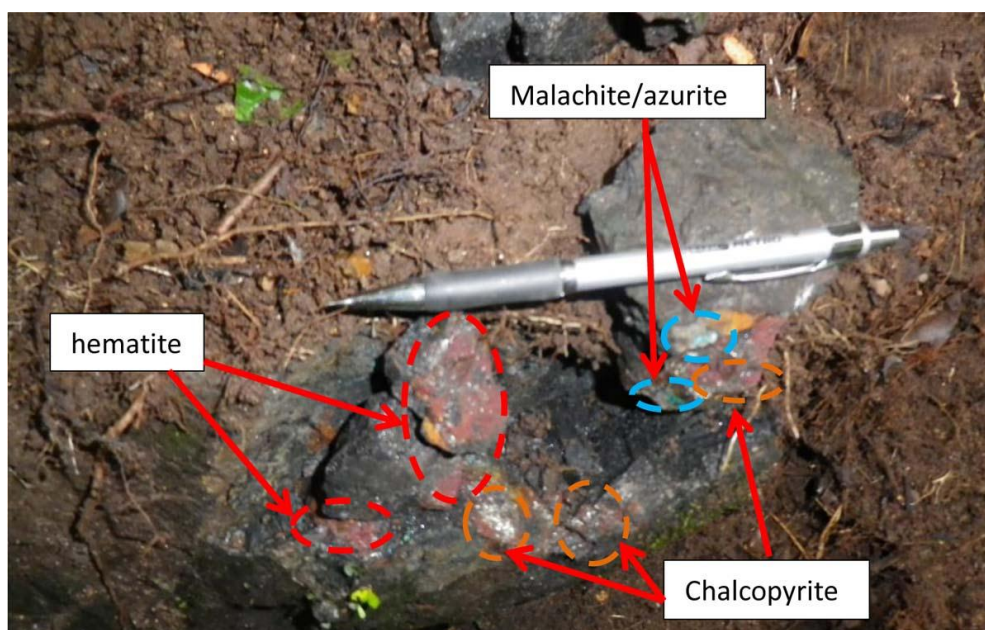
Table 3: Puling Cu/Mo IOCG prospect sample results

Sample Number	Sample Type	Gold (ppb)	Copper	Mo (ppm)	Silver (g/t)	Fe (%)	Description
5014	Outcrop	59	0.82%	49.1	3.1	13.5	Silicified tourmaline vein
5015	Float	11	0.51%	382	1.1	9.44	Mafic breccia
5016	Float	Nil	352 ppm	10.2	0.1	7.89	Mafic rock with malachite stains
5017	Float	Nil	499 ppm	2.4	0.1	6.94	Mafic rock with copper oxide
5018	Float	2	101 ppm	0.8	0.2	10.7	Intermediate rock
5019	Float	Nil	62 ppm	21.5	0.2	11.1	Mafic breccia
5020	Float	Nil	24 ppm	1	Nil	10.6	Intermediate rock
5021	Float	11	1.89%	33.8	2.3	10.6	Black tourmaline rich rock
5022	Float	270	1.27%	183	2.5	7.68	Black tourmaline float
5023	Float	9	0.82%	14.9	1.5	6.09	Tourmaline vein
5024	Float	23	1.33%	440	1.5	8.66	Tourmaline vein
5025	Outcrop	106	2.39%	223	9.3	14	Tourmaline vein
5026	Float	21	0.61%	31.9	1.5	7.8	Tourmaline vein
5106	Float	68	1.98%	503	1.5	7.54	

Photo 3: Outcrop at the Puling Cu/Mo IOCG prospect with petrography of samples describing quartz/tourmaline/albite alteration with primary chalcopryite

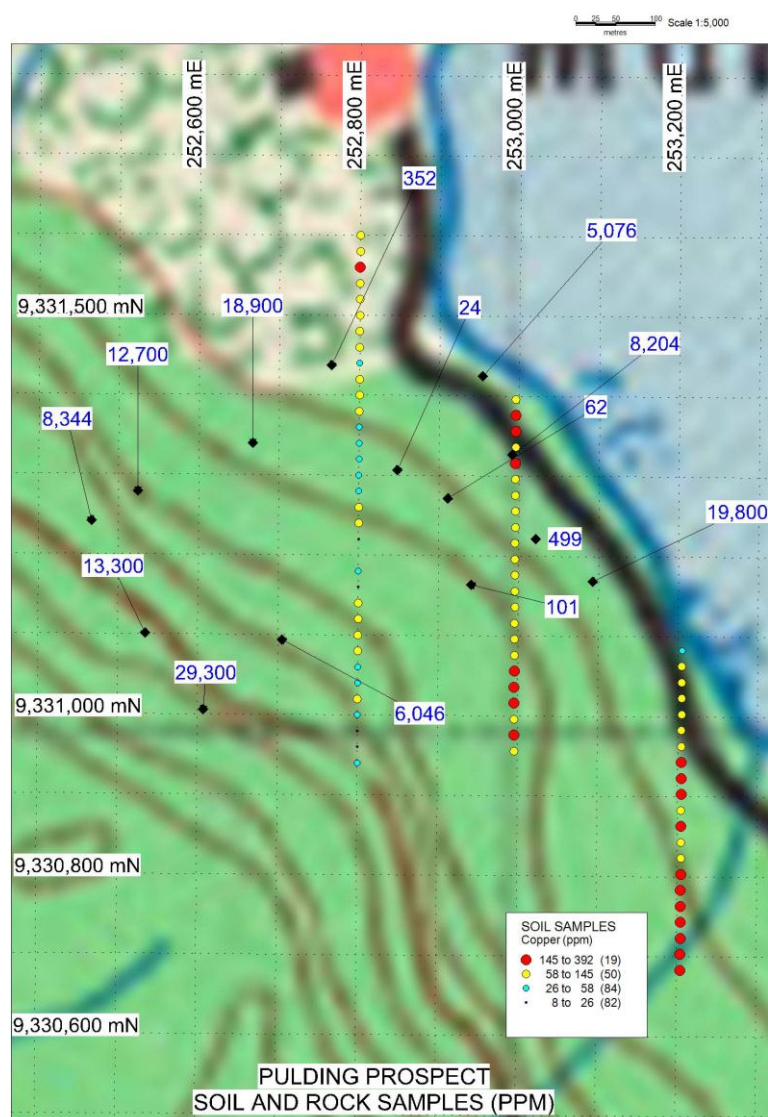


Photo 4: Rock sample from the Puding Cu/Mo prospect showing hematite and chalcopyrite, representing IOCG style mineralisation



Soil and rock sampling results at the Puding prospect show anomalous copper over a 900m by 900m area. Excavator trench sampling is required at this prospect in order to define drill targets.

Figure 7: Rock and soil copper samples at the Puding prospect





## WARA CREEK PROSPECT

At the Wara Creek iron prospect (refer to Figure 6), four samples (5003, 5010, 5011 and 5013) assayed > 50% Fe (refer to Table 4). These samples are of interest for high grade and low impurity iron ore (Photo 5). Additional exploration ahead of drilling is required to discover the source of these iron samples. The airborne magnetic geophysical anomaly MK005 (refer to Figure 5) is one possible source of iron at depth. The four samples greater than 50% Fe have been re-assayed to more accurately determine their iron and silica (SiO<sub>2</sub>) content.

*"All samples which analysed more than 50% Fe consist of magnetite partly replaced by martite (crystalline hematite pseudomorphing magnetite). Mineragraphic examination of two selected specimens showed the total absence of minerals other than hematite and magnetite except for very minor amounts of quartz. Electron microprobe scans showed the absence of phosphorus, sulphur, arsenic, vanadium, chromium, titanium and base metals", said consultant Stan Yeaman.*

Table 4: Wara Creek iron ore prospect rock float sample results

Sample Number	Fe %	P ppm	S ppm	As ppm	V ppm	Ti ppm	Cr ppm	Cu ppm	Mo ppm	Al %	U ppm	Description
5001	7.02	142	1223	11	9	881	Nil	67	20.9	5.86	0.19	Felsic breccia
5002	2.74	100	11000	3	31	1279	15	18	5.3	6.52	0.30	Silicified breccia
<b>5003</b>	<b>&gt;50</b>	<b>57</b>	<b>65</b>	<b>4</b>	<b>200</b>	<b>1441</b>	<b>25</b>	<b>Nil</b>	<b>1.2</b>	<b>1.23</b>	<b>0.20</b>	<b>Iron oxide breccia</b>
5004	8.46	411	22900	53	266	6247	31	165	1.2	9.92	0.22	Silicified breccia
5005	1.5	130	2348	4	20	709	Nil	25	2.5	5.08	0.44	Felsic breccia
5006	3.66	250	3763	Nil	39	2439	7	27	0.9	6.67	0.24	Magnetic breccia
5007	8.37	63	75700	Nil	Nil	747	8	14	3.8	5.35	0.21	Silicified rhyodacite
5008	3.81	51	103	2	2	704	7	3	2.9	6.20	0.41	Felsic breccia
5009	7.21	Nil	44700	Nil	19	575	Nil	36	51.1	10.10	0.29	Silicified breccia
<b>5010</b>	<b>&gt;50</b>	<b>374</b>	<b>461</b>	<b>13</b>	<b>79</b>	<b>1671</b>	<b>25</b>	<b>101</b>	<b>3.4</b>	<b>0.47</b>	<b>0.18</b>	<b>Iron oxide breccia</b>
<b>5011</b>	<b>&gt;50</b>	<b>172</b>	<b>Nil</b>	<b>7</b>	<b>74</b>	<b>573</b>	<b>7</b>	<b>67</b>	<b>1.6</b>	<b>0.23</b>	<b>0.16</b>	<b>Iron oxide breccia</b>
5012	7.34	247	48400	2	301	2675	90	11	0.3	10.20	Nil	Altered rock
<b>5013</b>	<b>&gt;50</b>	<b>83</b>	<b>88</b>	<b>5</b>	<b>14</b>	<b>549</b>	<b>7</b>	<b>Nil</b>	<b>0.5</b>	<b>0.22</b>	<b>0.12</b>	<b>Iron oxide breccia</b>

Photo 5: Wara Ck iron prospect sample with magnetite and > 50% Fe



## **PETROLOGY**

Petrological analysis of rock specimens collected in the field by Coppermoly, demonstrate the potential within the tenement to host Iron Oxide Copper Gold and Iron type deposits.

Two rock specimens containing magnetite and hematite are of considerable interest because of their purity. Specimen sample MK70 (refer to Slide 1) contains massive haematite, as martite, almost pure iron oxide. This is a common feature in Chilean IOCG deposits.

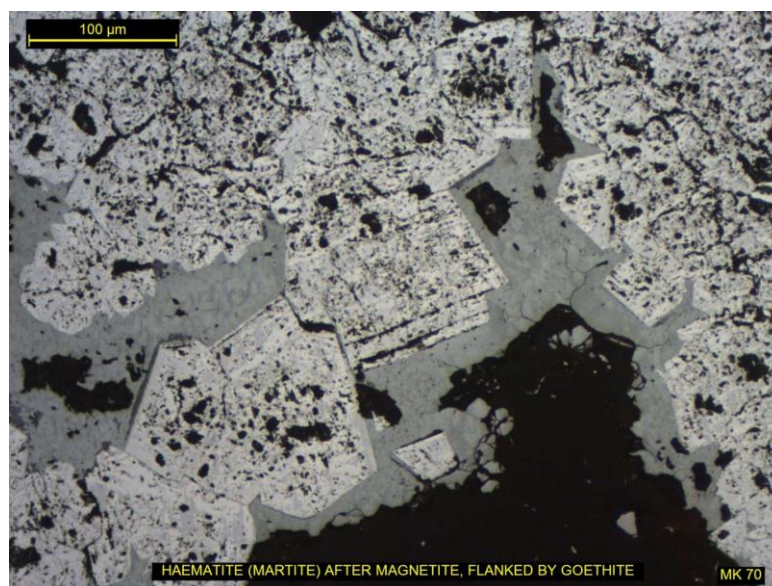
Rock specimen MK600 (refer to Slide 2) shows massive magnetite breccia material, which in large amounts could produce magnetic geophysical targets similar to those detected within the Makmak tenement.

Four of the seven specimen samples analysed consist of tourmaline quartzites with copper mineralisation. Scanning with an electron microscope indicates the absence of phosphorous, vanadium, chromium and titanium and are therefore of high quality.

The Pulding copper-gold prospect occurs within 300 metres of the coastline at Montagu Harbour with other geophysical targets occurring nearby. Rock outcrop shows quartz Tourmaline veining and mineralisation analogous to IOCG (Iron Oxide Copper-Gold) style mineralisation (refer to Photo 6).



Slide 1: Polished rock section showing massive haematite



Slide 2: Polished rock section showing massive magnetite

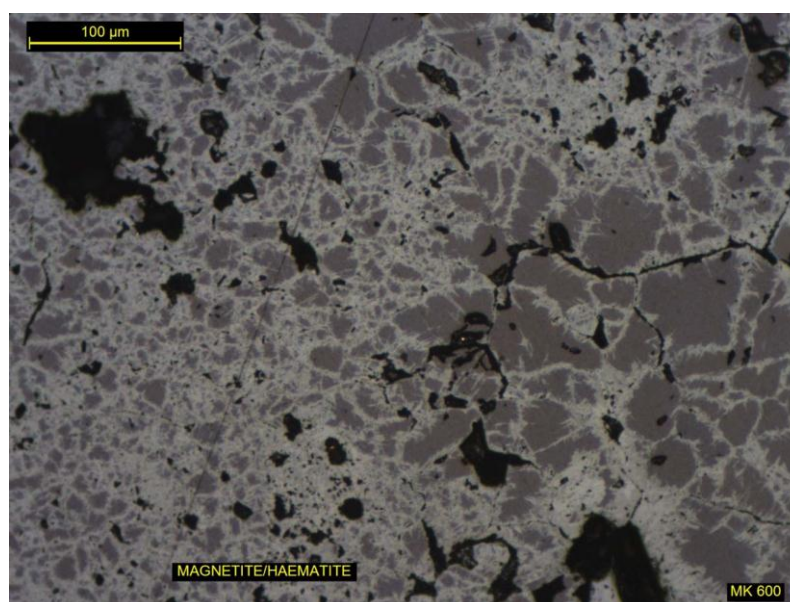


Photo 6: Tourmaline rich outcrop at the Puldung prospect



## MAGNETIC MODELLING

Seven magnetic geophysical targets within the Makmak tenement (MK001 to MK007) occur on interpreted geological transfer structures and are considered favorable conduits for the emplacement of mineralisation (refer to Figure 5). Geophysical modelling of MK004 and MK005 magnetic targets suggests they are caused by large amounts of magnetic material which require drill testing.

### MK004 Target

Modelled dimensions of the magnetic body causing this anomaly are 2800m (East-West) by 1600m (North-South) with a thickness of 1200m and magnetic susceptibility of 0.133 SI (refer to Figure 8). The magnetic model occurs beneath a topographic expression where preferential erosion has produced a circular feature surrounding less weatherable magnetic material (refer to Figure 9).

Figure 8: Modelling results from the MK004 target

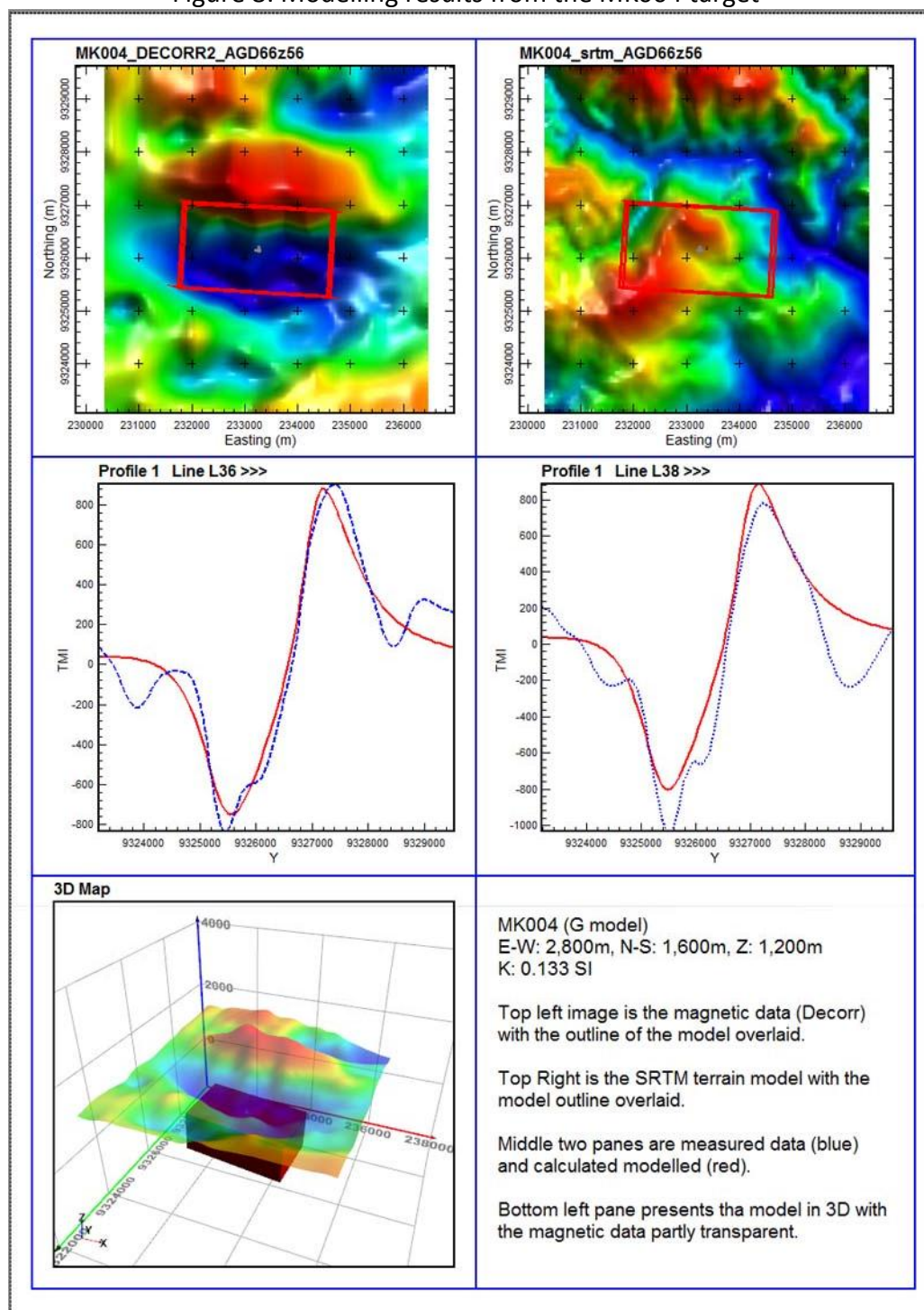
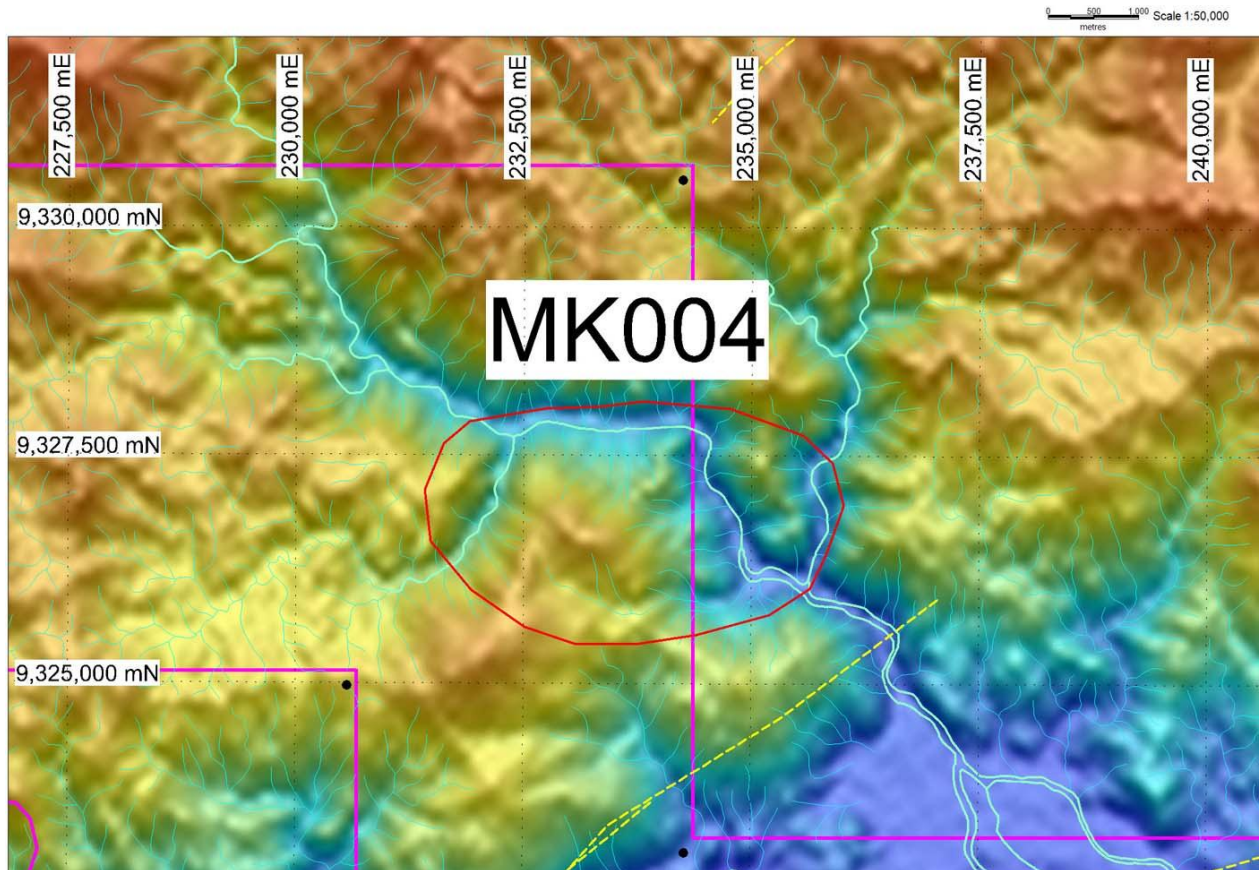




Figure 9: SRTM topography image and drainage at the MK004 target

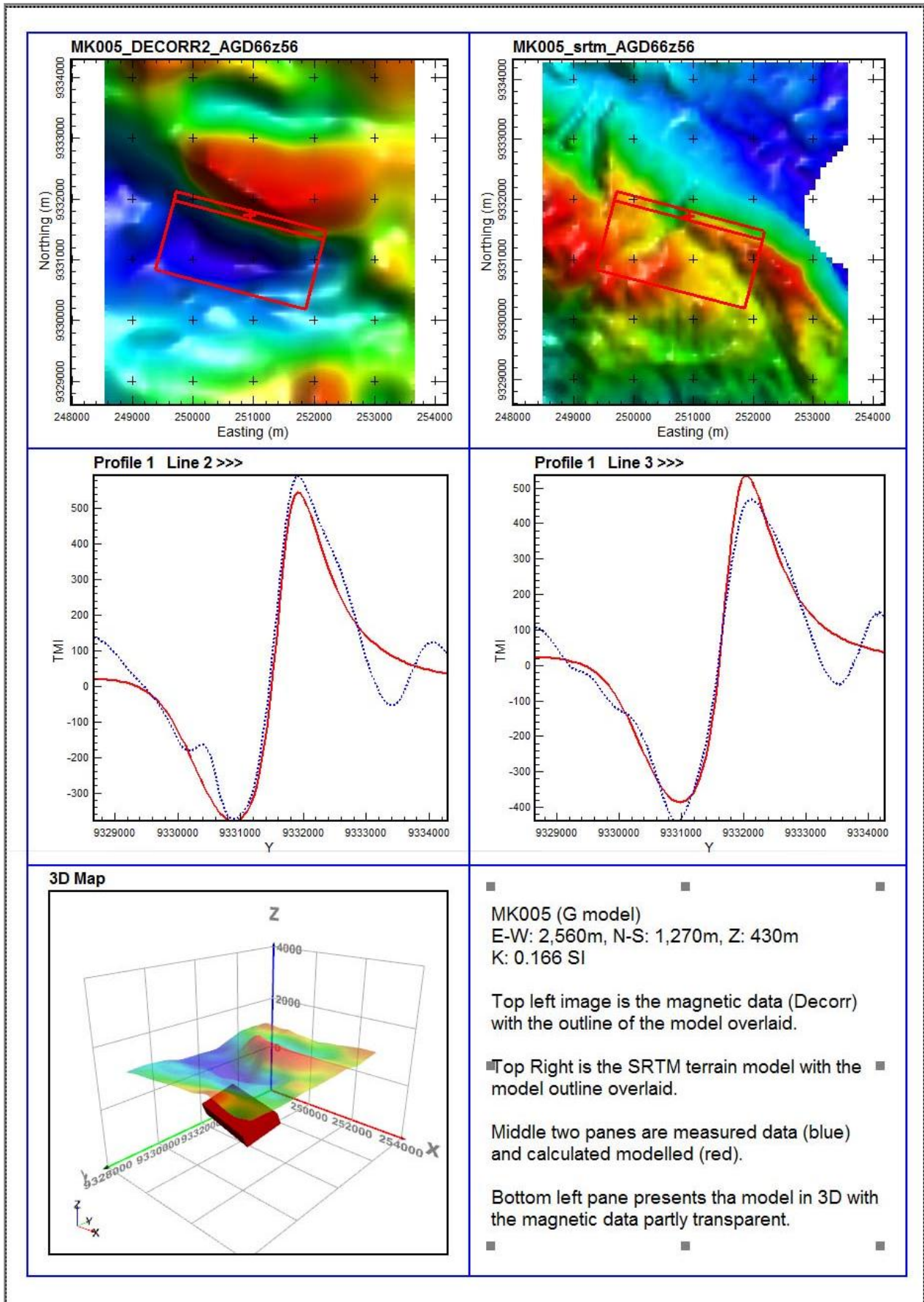


#### MK005 Target

Modelled dimensions of the magnetic body causing this anomaly are 2560m (East-West) by 1270m (North-South) with a thickness of 430m and magnetic susceptibility of 0.166 SI (refer to Figure 10).

Rock samples collected near this target identified copper, gold and molybdenum mineralisation associated with tourmaline veining and albite alteration.

Figure 10: Modelling results from the MK005 target





**Corporate:**

Mr Ces lewago and Mr Dal Brynelsen resigned as Non-Executive Directors in November 2012.

Exploration Licences EL1043 (Nakru), EL 1445 (Talelumas) and EL1077 (Simuku), West New Britain Project, are currently subject to a Letter Agreement with Barrick.

In November 2012, an In Principle Agreement was reached with Barrick with the aim of restoring Coppermoly to a 100% ownership of the West New Britain Project tenements. This agreement included a reasonable period of exclusivity to Coppermoly to assist in achieving this goal. The exclusivity period ended at the beginning of January 2013. With the recent drilling completed, Barrick continues to seek divestment of their interest in these tenements.

Under the terms of the Letter Agreement between Barrick and Coppermoly:

1. Coppermoly retains a 28% interest in the Tenements;
2. Payment of Coppermoly's 28% share of any costs incurred by Barrick up to the completion of a feasibility study will be delayed until the commencement of production on the Tenements;
3. Coppermoly has a right of first refusal to acquire Barrick's interest on terms no less favourable than those proposed by a third party purchaser, which Coppermoly may exercise within 60 days of being notified by Barrick of the terms of the proposed offer by a third party; and
4. Any purchaser of Barrick's interest in the Tenements will be required to assume the obligations of Barrick under, and be bound by the terms of, the Letter Agreement.

Barrick's obligations under the Letter Agreement will continue in full force and effect until any divestment of Barrick's interest occurs.

On behalf of the board,



Maurice Gannon

**EXECUTIVE DIRECTOR (OPERATIONS) / COMPANY SECRETARY**

The information in this report that relates to Exploration Results and Inferred Resources is based on information compiled by Peter Swiridiuk, who is a Member of the Australian Institute of Geoscientists. Peter Swiridiuk was a consultant to Coppermoly Ltd and is 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 ( $[\text{Sum of each total interval} \times \text{grade}] / \text{Total length of intersection}$ ).
- Quality control and quality assurance checks on sampling and assaying quality were satisfactory.
- BWNBDD (Barrick West New Britain Diamond Drillhole) Series Drill Core is PQ, HQ and NQ in size with core recovery predominantly greater than 93%.
- Co-ordinates from PNG projects are given in UTM Zone 56, AGD66 datum.
- Mineralised intersections are quoted as down hole widths.
- Mineralisation at Nakru-01 consists of copper, gold and silver.
- \* Copper equivalent values have been calculated as  $(\text{Cu} + (6764.1 \times \text{Au}) + (113 \times \text{Ag}))$
- \* Copper Equivalent is the contained copper, gold and silver that are converted to an equal amount of pure copper and summed (based on assays of mineralised rock and actual metal prices). It is used to allow interpretation of the possible theoretical 'value' of mineralised rock, without consideration of the ultimate extractability of any of the metals.
- The ASX requires a metallurgical recovery be specified for each metal. These are 87% for copper and 53% for gold.
- \*\*Copper equivalent values for Simuku have been calculated as  $(\text{Cu} + (7.6 \times \text{Mo}) + (7818 \times \text{Au}) + (101.3 \times \text{Ag}))$ .
- It is the Company's opinion that each of the elements included in the metal equivalents calculation has reasonable potential to be recovered if the project proceeds to mining.
- Drillhole samples from drillholes in PNG 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 were then freighted to either Intertek in Lae (PNG) for sample preparation. Samples were dried to 106 degrees C and crushed to < 2 mm. Samples greater than 2kg were rifle split down to 1.5kg and pulverised to 75 microns. The final 300g sized pulp samples were then sent to Intertek laboratories in Jakarta for geochemical analysis. Intertek analysed for gold using a 50g Fire Assay with Atomic Absorption Spectroscopy finish. Other elements were assayed with ICPAES Finish. Copper values greater than 0.5% were re-assayed. Intertek laboratories have an ISO 17025 accreditation. Unused half core is stored in sheltered premises in the town of Kimbe.
- The resource statement for Nakru-01 has been compiled by Golder Associates in accordance with the guidelines defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves (The JORC Code). Golder Associates has verified the data disclosed. The key assumptions, parameters and methods used to estimate the minerals resources are set out in the 'Nakru Copper-Gold Deposit – Mineral Resource Statement' in a release dated 26<sup>th</sup> July 2012. The estimate of mineral resources is not materially affected by any known environmental, permitting, legal, title, taxation or political issues. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
- The Conceptual Mining Study was completed by Mr David Swain, FAusIMM, Principal of Swain Engineers, Consulting Mining Engineers, at the request of Coppermoly Ltd.
- All samples collected from the Makmak tenement have been transported to Kimbe and sent by courier to ITS (PNG) Limited laboratories in Lae for preparation and analysis. All work is performed in accordance with the Intertek Minerals Standard Terms and Conditions of work <http://www.intertek.com>. The laboratory is ISO17025:2005 accredited.
- Mr Stan Yeaman is a Fellow of the AusIMM and has a world-wide experience of metalliferous mineral exploration extending over almost five decades. Mr Yeaman is a consultant to Coppermoly and has sufficient experience which is relevant to the style of mineralisation being considered. Mr Yeaman consents to the inclusion of statements made in this report.
- Float samples are loose rocks collected on the surface which may have been transported some distance from their original source.