Assets, Experience, Growth

ASX ANNOUNCEMENT – 1 July 2013

MULTIPLE NEW EXPLORATION TARGETS IDENTIFIED AT BARBARA

Encouraging progress on several fronts as Syndicated progresses final agreement with Exco Resources for joint development of Barbara copper-gold project

Highlights

- **Soil sampling indicates wide areas of anomalism within 5km of Barbara deposit.**
- **New Prospects defined at Spectre, Lilly May and Mt Olive on proposed Barbara Joint Venture tenements with Exco Resources.**
- **Multiple new prospects defined on 100%-owned tenements including at Scaramanga, Florin, Drax, Vargas, Stromberg and Sandor.**
- **Positive metallurgical testwork results confirm attractive recoveries from Barbara ores.**

Syndicated Metals Limited (ASX: SMD) is pleased to report on a number of positive developments at its **Barbara Copper-Gold Project**, located 60km north-east of Mount Isa in North Queensland, including the identification of new exploration targets and positive results from metallurgical test-work.

This follows the recent MOU with Exco Resources to jointly explore and develop Barbara and the Sale and Purchase Agreement with Orbis Gold covering MDL 499 and MDL 500 (see Figure 1).

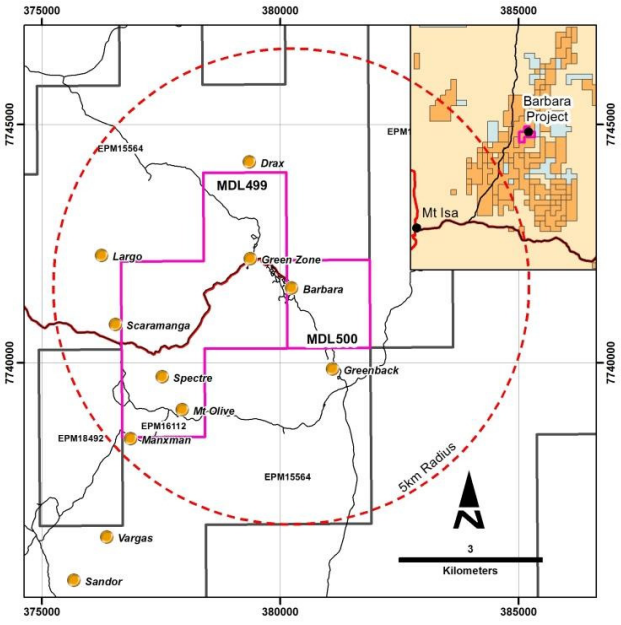

Figure 1

Exploration – New Targets Identified

In April 2013 Syndicated commenced a regional soil sampling and geological mapping program covering both the Barbara area and prospective structural targets within an approximate 10km radius of the Barbara deposit.

The program commenced on EPM 16112 (now MDL 499),which forms part of the tenure subject to the MOU with Exco, but also extended onto surrounding 100%-owned ground where field reconnaissance and geophysical maps had identified structures which were similar to the Barbara position.

The program consisted of 400 metre by 50 metre soil sampling covering an area of approximately 10km by 10km over the prospective Barbara corridor and the Kalkadoon granite contact to the west of Barbara (see Figure 2 and Figure 4). Sampling utilised the -80 micron fraction of the soil sample. Analysis was completed for 14 elements by XRF wet geochemistry, conducted by Acme Laboratories in Vancouver, Canada.

Follow-up soil sampling was completed on a 200m by 50m grid over prospective lithology and anomalous areas identified in the wet geochemistry data. Analysis of the in-fill soil sampling was completed by hand-held XRF. Copper and iron anomalism for the area sampled is illustrated in Figure 2 and highlights a number of broad features including:

- Strong iron anomalism and low-level copper anomalism in a generally north-south orientation corresponding to the mapped positions of the underlying Magna-Lynn Basalt unit, part of the Argylla Formation;
- "Quiet" zones of copper anomalism between the Magna-Lynn basalt corresponding to the mapped position of the underlying Leichhardt Volcanics;
- Association of the strongly anomalous copper in soil locations with identified north-west trending faults in similar structural and stratigraphic positions to the faults that host the Barbara Mineral Resource;
- The program has identified a number of new mineralised trends, which host a number of new prospects which warrant immediate follow-up. The locations of these prospects are shown in Figure 2 below:

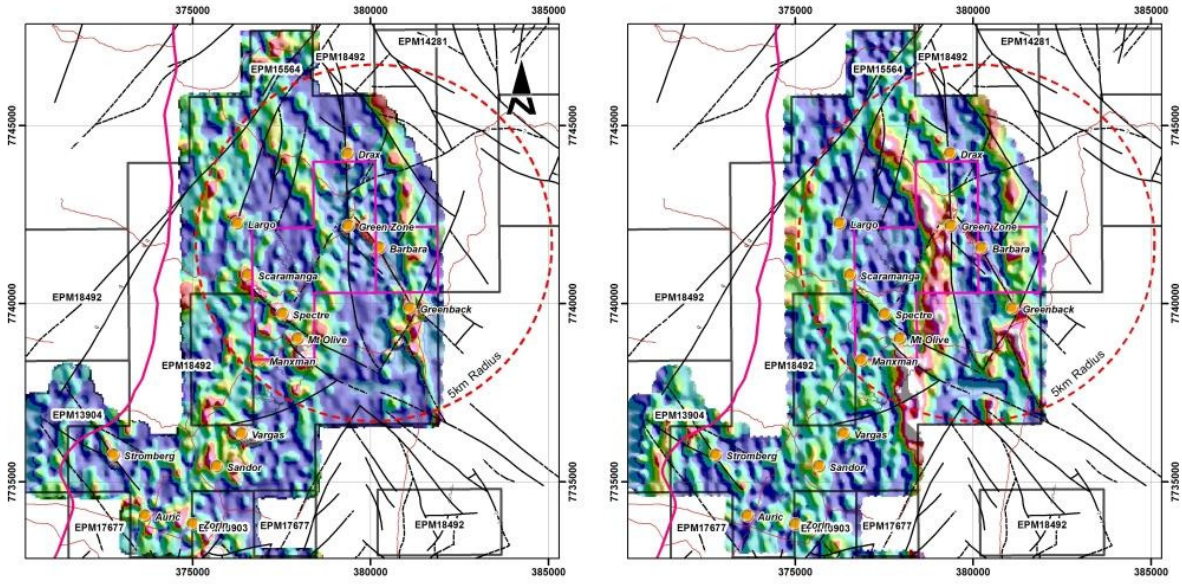

Figure 2 - Copper anomalism (left hand side) and iron anomalism (right hand side) in the Barbara area

More detailed analysis of specific trends and prospects is provided below.

EPM16112 (Subject to Exco MOU)

Within EPM16112, the soil anomalism over the area subject to the MOU with Exco is illustrated in Figure 3. The size and tenor of the copper-in-soil anomaly that sits above the Barbara deposit (5.3Mt @ 1.4% Cu) and Green Zone deposit (400Kt @ 0.9% Cu) can be seen on the centre right of the image. The footprints of these deposits are relatively subdued but the tenor of the anomalies is relatively high. This feature illustrates the style of soil anomalism encountered in the area generally, where high-grade copper mineralisation within the Leichhardt Volcanics associated with cross-cutting faults and shears is encountered.

In the south west part of the EPM16112 tenement the Spectre and Mt Olive anomalies are highlighted. These anomalies both correspond with the "Barbara-style" of anomalism and sit along two north-west trending faults which lie sub-parallel to the Barbara Fault some 4km to the north-east. Copper anomalism covers approximately 3km of the Spectre Fault and 1km of the Mt Olive Fault.

Field inspection of the area shows a number of historical workings and copper rich outcrops within the highlighted soil anomalies.

Historical production records at these prospects show production of high grade copper ores from relatively narrow zones of mineralisation which were developed into small underground mines with cut-off grades of approximately 4% Cu (see Table 1 below):

Table 1: 1953 – 1972 Production Records of EMP 16112 mines

	Ore Tonnes	Cu Tonnes	% Cu
Barbara	188	20.4	10.8
Lilly May	4,872	349.2	7.2
Mt Olive	1,660	112.7	6.8

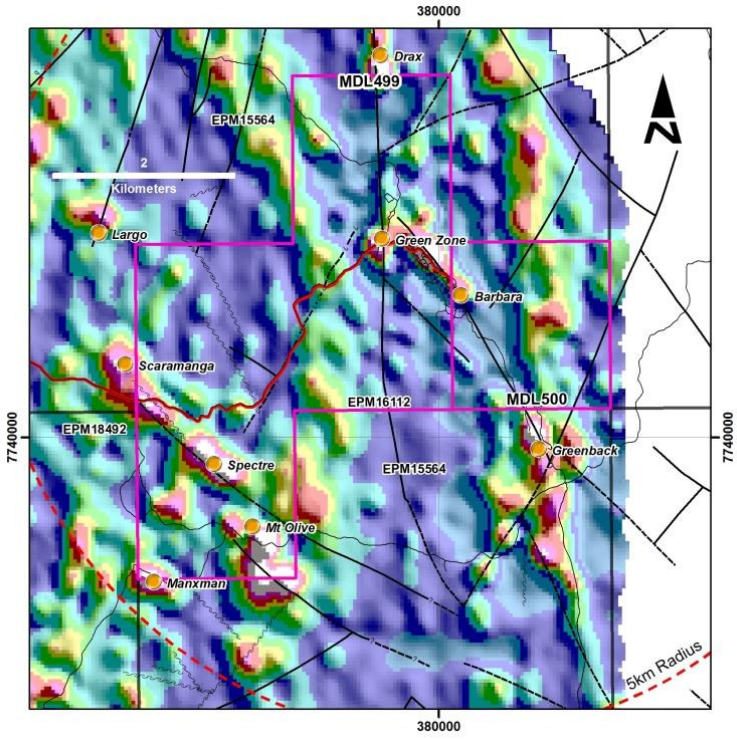

Figure 3

EPM15564

Surrounding the area subject to the Exco MOU is tenement EPM15564. A number of low-level and generally smaller anomalies have been highlighted by the soil geochemical survey including the Drax, and Greenback Prospects (see Figure 4 below). Field checking has confirmed generally narrow zones of oxide copper in outcrop, but no historical workings.

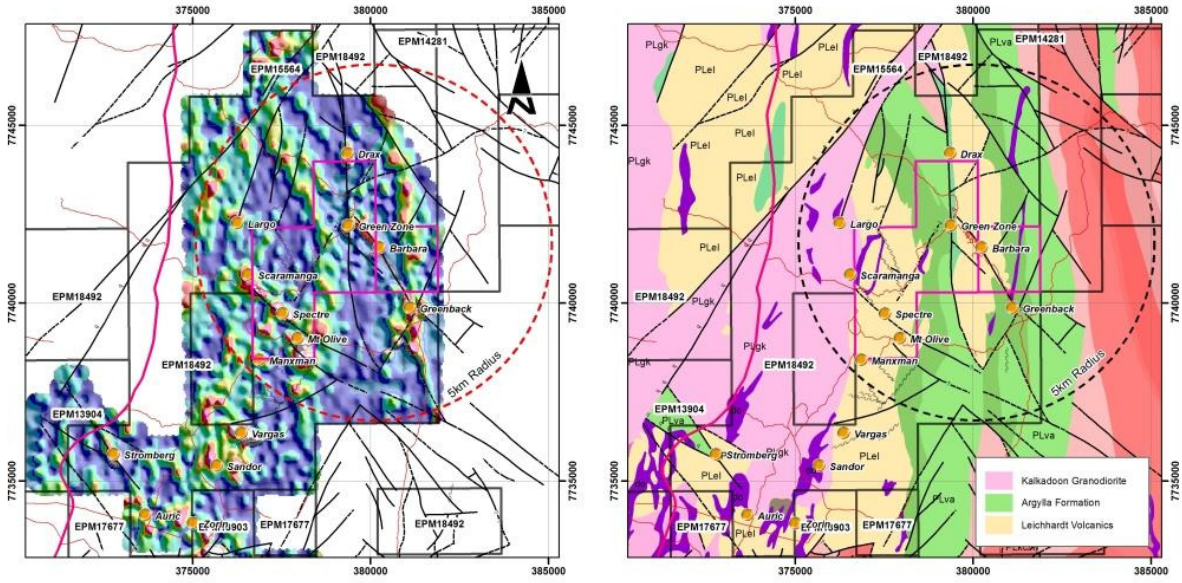

Figure 4

Kalkadoon Granite Contact

To the west of the Exco MOU area and the "Barbara-style" prospects lies the geological contact of the Kalkadoon Granite with the overlying Leichhardt Volcanics. The contact traverses EPM15564 and EPM18492, both of which are located on 100%-owned tenements. A number of soil anomalies sit along this contact, particularly at the intersection of the prospective north-west trending faults and the contact. The underlying geology and Cu-in-soil geochemistry is illustrated in Figure 4.

The Kalkadoon Granite is recognised in the area as an early source of copper mineralisation but importantly also provided the structural architecture that the later, higher grade, copper mineralising events utilised to focus mineralisation along the faults and shear zones of the area. The Kalkadoon granite contact and the faults that intersect it are therefore highly prospective for both high-grade "Barbara-style" mineralisation and larger Iron Oxide Copper Gold (IOCG) targets.

Figure 4 illustrates:

- Generally elevated copper-in-soil anomalism over a large area along the contact; and
- Strongly elevated soil anomalism at locations where north-west trending faults intersect the contact.

Prospects showing these features and requiring follow-up include Largo, Scaramanga, Vargas, Sandor, Zorin and Auric. Further west, the Stromberg prospect appears to be a "Barbara-style" anomaly.

A number of these prospects contain historical workings however only Manxman (a small, isolated working approximately 20 metres deep) has recorded production as shown in Table 2.

Table 2: 1953 – 1972 Historical Production Records for the Kalkadoon Granite Contact Prospects

	Ore Tonnes	Cu Tonnes	% Cu
Manxman	1,008	78.5	7.8

2013/14 Exploration Program

The discovery of a number of new prospects and soil anomalism over historical, high-grade copper production areas, both within and adjacent to the Barbara Project area, has illustrated the prospectivity of the area to host both high-grade vein-style copper mineralisation and larger IOCG-style deposits which are likely to be associated with the Kalkadoon granite.

The focus for the exploration teams in the upcoming field season will be on characterizing and defining the mineralisation associated with each anomaly, commencing with the Spectre and Mt Olive trends.

Drilling and ground geophysical programs are scheduled to commence in the September Quarter of 2013 and will coincide with the proposed drilling component of the Barbara Feasibility Study being managed by Exco.

In the longer term, the purpose of the proposed exploration drilling program is to define additional ore grade material to complement the existing Mineral Resources at the Barbara Project, which will be assessed as part of the proposed Feasibility Study being undertaken by Exco.

Metallurgical Testing – Barbara Open Pit

In April 2013, Syndicated reported the initial results of the metallurgical testwork program on a range of ores from within the Barbara Open Pit (see ASX Announcement – 2 April 2013).

The results indicated that at the Rougher stage of flotation, copper recoveries between 98% and 99.4% recovery could be achieved at 12.2% to 18.1% copper grade in concentrate.

Further work, predominantly Cleaner Flotation testwork, has been undertaken to determine overall copper recovery and confirm that 25% Cu in concentrate can be achieved from the samples tested in the Rougher stage.

Tests were undertaken on each domain and also on a blend of all three domains to determine optimal cleaner concentrate grinding and flotation conditions. The results are summarised in Table 3 below:

Table 3 – Barbara Copper-Gold Project, 2013 Final Metallurgical Testwork Results

Hangingwall Domain – 106um Primary Grid

53um Regrind	Mass %	Cu %	Co %	Fe %	S %	Au ppm	As ppm
Head	100	1.93	0.09	13.0	5.90	0.20	1100
Rougher Concentrate	14.4	12.8	0.38	41.0	33.1	1.16	3400
Cleaner Concentrate	8.2	21.8	0.24	37.5	34.6	1.26	2000
Overall Recovery %		95.0	21.7	23.1	43.8	55.9	20.0

38um Regrind	Mass %	Cu %	Co %	Fe %	S %	Au ppm	As ppm
Head	100	1.93	0.09	13.0	5.90	0.19	1100
Rougher Concentrate	14.4	12.8	0.39	38.3	32.0	1.05	3600
Cleaner Concentrate	6.0	28.0	0.14	32.0	33.0	1.62	1400
Overall Recovery %		88.2	10.1	14.9	35.1	52.2	10.4

Footwall Domain – 106um Primary Grid

38um Regrind	Mass %	Cu %	Co %	Fe %	S %	Au ppm	As ppm
Head	100	0.77	0.04	17.7	7.80	0.07	300
Rougher Concentrate	9.56	7.30	0.10	36.7	27.5	1.06	500
Cleaner Concentrate	2.83	22.7	0.10	33.4	31.5	1.80	300
Overall Recovery %		91.1	4.6	5.67	12.4	33.6	5.8

Central Domain – 106um Primary Grid

38um Regrind	Mass %	Cu %	Co %	Fe %	S %	Au ppm	As ppm
Head	100	0.42	0.02	11.8	2.93	0.10	200
Rougher Concentrate	5.4	7.4	0.12	32.2	22.5	0.88	800
Cleaner Concentrate	1.5	24.9	0.05	33.5	32.1	2.28	1000
Overall Recovery		84.7	5.2	4.4	18.4	48.4	17.2

Composite Blend (30%HW, 60%CE, 10%FW) – 106um Primary Grid

38um Regrind	Mass %	Cu %	Co %	Fe %	S %	Au ppm	As ppm
Head	100	0.89	0.04	13.0	4.40	0.21	300
Rougher Concentrate	8.5	10.3	0.30	38.3	29.9	1.72	2000
Cleaner Concentrate	3.1	26.2	0.10	32.8	32.6	1.76	1000
Overall Recovery		92.7	8.9	7.9	23.2	26.2	9.0

The results demonstrate that an acceptable grade concentrate at ≥ 25% copper can be produced by re-grinding the rougher concentrate to 38 micron and re-floating in a cleaner concentrate circuit. The results for individual domains varied between 22.7% and 28% Cu in concentrate at 84.7% to 91.1% recovery.

A blend of ores typical of the type likely to be received by the plant produced 92.7% overall recovery of copper at 3.1% mass yield and 26.2% copper-in-concentrate. Gold recovery was low at 26.2%, but Arsenic grades in cleaner concentrate varied between 300ppm and 1,400ppm and were well below the limit of 2,000ppm in concentrate generally required by customers.

The results indicate that acceptable concentrate grades of around 25% Cu can be achieved while maintaining copper recovery at or above 90%.

Further optimisation testwork will be undertaken during the Feasibility Study of the Barbara Project to be conducted by Exco.

ENDS

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Competent Person's Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Andrew Munckton who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience 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 (the "JORC Code"). Mr Munckton is a full-time employee of Syndicated Metals Limited and consents to the inclusion in the report of the Exploration Results and Mineral Resources in the form and context in which they appear.

Exploration Targets

This report comments on and discusses Syndicated Metals Limited's exploration in terms of target size and type. The information relating to Exploration Targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. The potential quantity and quality of material discussed as Exploration Targets is conceptual in nature since there has been insufficient work completed to define them as Mineral Resources or Ore Reserves. It is uncertain if further exploration work will result in the determination of a Mineral Resource or Ore Reserve.