



LIMITED  
ABN 48 106 732 487

**ASX Announcement**

**27<sup>th</sup> July 2015**

**Siam Copper Project Thailand**

**Potential for High Grade Copper Mineralisation Identified at Siam 2**

**HIGHLIGHTS**

- *Rock grab sample containing magnetite and visible secondary copper mineralisation returns assay of 2.05% Cu and 10.6g/t Ag at Siam 2.*
- *Copper - mineralised sample collected close to outcropping magnetite goethite mineralisation which coincides with a prominent aeromagnetic anomaly on northern margin of the 20km<sup>2</sup> Siam 2 copper geochemical anomaly.*
- *Potential seen for high grade "skarn" related copper mineralisation associated with this aeromagnetic anomaly.*
- *Geological mapping, prospecting and ground magnetic surveys ongoing.*

**CORPORATE SUMMARY**

**Executive Chairman**

Paul Poli

**Director**

Frank Sibbel

**Director & Company Secretary**

Andrew Chapman

**Shares on Issue**

144.15 million

**Unlisted Options**

15.47 million @ \$0.25 - \$0.43

**Top 20 shareholders**

Hold 50.36%

**Share Price on 24 July 2015**

15.5 cents

**Market Capitalisation**

\$22.34 million

## INTRODUCTION

Matsa Resources Limited (“Matsa” or “the Company” ASX:MAT) is pleased to report on results of recent exploration activities within the Company’s Siam Copper Project which comprises 570km<sup>2</sup> of granted SPLs and 326km<sup>2</sup> of SPLA’s in the process of being granted in central Thailand. In particular this relates to detailed prospecting and mapping at the Siam 2 prospect. *(Refer MAT announcements to ASX 8<sup>th</sup> April 2015, 28<sup>th</sup> April 2015 and 30<sup>th</sup> April 2015)*

## EXPLORATION UPDATE

The objective of exploration carried out to date in the Siam Copper Project has been to establish the presence of economic copper mineralisation within highly anomalous stream sediment catchments, particularly where past work by Matsa has already confirmed the presence of visible copper mineralised boulders at Siam 1 and Siam 2.

The Siam 2 prospect has been defined by strongly copper anomalous stream sediment and soil samples over an area of some 20km<sup>2</sup>. The prospect is located in an area of variable topographic relief, being hilly in the north and west, and generally flatter in the south and east. Outcrop within the prospect is poor with hilly areas mantled by soil and boulder lag.

Prospecting and geological mapping has been focused on the northern edge of Siam 2 where wide spaced strongly copper anomalous soil samples are located in an incised area and potentially reflect exposed in-situ copper mineralisation. Past rock grab sampling by Matsa has recovered one sample returning >1% Cu (P325RK) *(Refer MAT announcement to ASX 30<sup>th</sup> April 2015 for location of Siam 2 within the Siam Copper Project).*

A grab rock sample Y308 containing magnetite and visible secondary copper mineralisation (Figure 1) was collected in an area of basaltic andesite, chert and minor limestone. Significantly the sample is located close to a small outcropping massive magnetite body (20m wide exposure) which underlies a regional aeromagnetic anomaly. Y308RK is composed mostly of quartz and magnetite with minor malachite and azurite. The rock is porous in some parts perhaps reflecting removal of carbonate and sulphides in the weathering process.



*Figure 1: Rock grab sample Y308RK showing blue and green secondary copper minerals in a matrix of quartz magnetite and goethite.*

## Assay Results

Sample Y308RK was submitted to the MAS laboratory in Bangkok for multi-element analysis. The sample was digested using Aqua Regia and analysed using ICP-OES for 23 elements. The results are tabulated below.

Elements	Units	Detection	Value
Ag	ppm	0.3	10.6
Al	%	0.01	0.46
As	ppm	2	9
Ba	ppm	1	3
Bi	ppm	1	<1
Ca	%	0.01	1.67
Cd	ppm	0.5	<0.5
Co	ppm	1	8
Cr	ppm	1	7
Cu	ppm	1	>10000
Fe	%	0.01	10.7
Hg	ppm	2	<2

Elements	Units	Detection	Value
K	%	0.01	0.01
Mg	%	0.01	0.3
Mn	ppm	2	256
Mo	ppm	0.5	15.6
Na	%	0.01	<0.01
Ni	ppm	1	12
Pb	ppm	3	41
Sb	ppm	1	<1
Ti	%	0.01	<0.01
V	ppm	1	73
Zn	ppm	1	73

The Cu value of the sample was beyond the detection limit of the ICP-OES analytical method and consequently the pulp sample was re-assayed at the same laboratory using sodium peroxide fusion and measured with AAS. The result came out as 2.05% Cu. Aside from Cu, this sample also has elevated Ag with 10.6 g/t value.

Y308RK is the third significantly mineralised rock chip sample collected from this area with elevated Cu grades >0.5% Cu also returned in grab rock samples P325RK and P313RK with values of >1% Cu, 7.1g/t Ag and 0.67% Cu, 2.2g/t Ag respectively.

The magnetite unit and the associated copper mineralised float may represent significant skarn related copper mineralisation. Geological mapping and ground magnetic surveys are now underway in order to define a target for drill testing.

Background information about the methods and data used in compiling this report, are attached as Appendix 1 in accordance with the JORC 2012 Code.

## SIAM COPPER PROJECT BACKGROUND

In April 2015 Matsa reported that 37 of its 122 Special Prospecting Licence Applications (SPLA's) in Thailand were granted. This historic event represents the first time in almost a decade that such a large number of SPL's for copper/base metals have been granted at the one time.

The 37 granted licences cover 570km<sup>2</sup> of Matsa's Siam Copper Project in Central Thailand. The project is located in the Loei – Ko Chang fold belt which contains important mineral deposits including the Phu Kham copper mine in Laos and the >5MOz Chatree gold mine operated by Kingsgate Consolidated. The Loei Ko Chang arc is an arcuate palaeo – island arc terrane which is more than 600km long and oriented approximately north–south. This terrane extends from Ko Chang Island in the south to Loei in the north of Thailand and beyond into Laos. The Siam Copper Project is underlain by Permo Triassic andesitic basaltic volcanics and associated intrusives and marine sediments.

For further Information please contact:

**Paul Poli**  
**Executive Chairman**

**Frank Sibbel**  
**Director**

**Phone** +61 8 9230 3555  
**Fax** +61 8 9227 0370  
**Email** [reception@matsa.com.au](mailto:reception@matsa.com.au)  
**Web** [www.matsa.com.au](http://www.matsa.com.au)

## **Exploration results**

*The information in this report that relates to Exploration results is based on information compiled by David Fielding, who is a Fellow of the Australasian Institute of Mining and Metallurgy. David Fielding is a full time employee of Matsa Resources Limited. David Fielding has sufficient experience which is relevant to the style of mineralisation and the type of ore deposit under consideration and the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. David Fielding consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## Appendix 1 - Matsa Resources Limited

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<u>Thailand</u>  Sampling carried out according to well established procedure. Soil samples are taken as close as possible to the top of the weathered rock profile rather than in overlying vegetation rich A horizon material. Stream sediments samples represent active bedload in defined drainage channels
	<i>Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Soils and streams: Sufficient sample bagged in the field to enable selection of duplicates to be run for QA QC purposes. Rocks, typically 1-2kg collected, and submitted for crushing and grinding at lab.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	<u>Stream Sediment Samples and soil samples</u>  -2mm samples of active stream silt and B horizon soils were submitted for assay where samples were dried and further reduced by screening with assays carried out on the -80# fraction. A 0.5gram sample of the -80# fraction digested by Aqua regia acid digest and 23 elements including Cu were read by ICP OES to a reported detection limit of 1ppm Cu.  <u>Rock Samples</u>  Rock samples were submitted for drying, crushing to 2mm size and then pulverized down to 106 microns or -150#. A 0.5gram sample of the -150# fraction digested by Aqua regia and 23 elements including Cu were read by ICP OES to a reported detection limit of 1ppm Cu. Selected rock samples with assays over 1% Cu were subjected to screen assaying sieved to 75 microns or 200#. Both +200# and -200# fractions were subjected to a sodium peroxide fusion and measured with AAS for Cu only.  Limited hand held XRF analysis carried out on rock samples as a semi quantitative way to confirm their copper bearing character.
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Standard lab sample preparation process includes drying, crushing and pulverizing.  Standard lab sample preparation process includes drying, screening to -80# for soil and stream sediment samples. Rock samples undergoes drying, crushing to nominal -2mm size and pulverized to 106 microns/-150#. Rock samples with Cu grades of >1% were screened to 75microns/-200#.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size is appropriate for the targeted mineralization style.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p><u>Thailand</u></p> <p>Assaying of soil samples, stream sediments and rock samples were carried out at Mineral Assay and Services (MAS) laboratories in Bangkok, Thailand, Soil samples: Sample preparation dry and screen to -80#,</p> <p>Rocks, streams, soils Digest GEO23 Aqua regia digest and measured with Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES) for 23 elements, A table of elements with lower and upper detection limits is included as Appendix 2. Some elements are partially leached using Aqua regia, e.g., Al, Cr, Fe, etc.</p>
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Olympus Innovx Delta Premium (DP4000C model) handheld XRF analyser. Reading times employed was 45 sec/beam for a total of 145 sec using Soil Mode.
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	Not carried out because laboratory QA QC procedures are regarded as sufficient at this stage. Handheld XRF QAQC includes use of duplicates, standards and blanks.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Matsa Group Exploration Manager verified all significant intersection results.
	<i>The use of twinned holes.</i>	
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Data entry carried out by field personnel thus minimizing transcription or other errors. Trial plots in field and rigorous database procedures ensure that field and assay data are merged accurately.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made to the assay data.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	
	<i>Specification of the grid system used.</i>	UTM Grid system used namely Indian Thailand 1960 datum Zone 47.
	<i>Quality and adequacy of topographic control.</i>	Topographic control 2-5m accuracy using published maps or Shuttle Radar data is sufficient to evaluate topographic effects on assay distribution.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	For Thailand, typically between 4 and 12 samples per km2.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	Not applicable at this stage.

Criteria	JORC Code explanation	Commentary
	<i>Whether sample compositing has been applied.</i>	
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Not regarded as an issue for soil samples and first pass aircore samples beyond clear mark up and secure packaging to ensure safe arrival and accurate handling by personnel at assay facility. Assay Pulps retained until final results have been evaluated.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Not carried out at this stage.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	<u>Thailand</u> Exploration tenements comprise more or less regular aggregates of square blocks to a maximum of 16km <sup>2</sup> . Tenements are held by Siam Copper Ltd and PVK Mining Limited which are both wholly owned subsidiaries of Matsa Resources Limited. Tenements have been granted for a period of 5 years subject to completion of agreed exploration programme.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i>	All Matsa tenements are in good standing and no known obstacle exists.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<u>Thailand</u> Past work in the Siam project area has included -80# stream sediment sampling carried out by the Department of Mineral Resources of Thailand (DMR) and made available to explorers. Other work includes a helicopter borne combined

Criteria	JORC Code explanation	Commentary
		electromagnetic and magnetic survey carried out mostly on EW lines nominally 400m apart.
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p><u>Thailand</u></p> <p>The target is volcanic hosted copper mineralisation associated with widespread altered boulders, in some cases containing visible Cu mineralisation. The project area is part of an arcuate paleo – island arc terrane which is more than 600km long and oriented approximately north – south. This terrane extends from Ko Chang Island on the Cambodian border in the south to the Laos border beyond Loei in the north.</p> <p>The geological character of this belt results from subduction of oceanic crust towards the east beneath the Indo – Sinian plate during the Permian and early Triassic periods through to the Tertiary. Volcanic rocks, comprising mostly andesites in the project area, were deposited in early Triassic times over extensive Permian aged shelf limestones.</p>
Drill hole Information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p>	
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p>	
	<p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p>	
	<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	
Relationship	<p>These relationships are particularly important in the reporting of Exploration</p>	

Criteria	JORC Code explanation	Commentary
<i>between mineralisation widths and intercept lengths</i>	<i>Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Suitable summary plans have been included in the body of the report.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Not required at this stage.
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All related exploration information are included in the main body of the report
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Included in the main body of the report.