



ASX Announcement

19<sup>th</sup> January 2016

## Siam Copper Project Thailand Exploration Update

### HIGHLIGHTS

- *Diamond drillhole 16SCDD002 intersected trace amounts of visible, finely disseminated native copper mineralisation in andesite lavas, from 53m to its current depth of 83m*
- *The native copper mineralized lavas observed so far in 16SCDD002 were intersected well above the IP target depth of ~200m*
- *Drilling has been temporarily suspended on a voluntary basis because of a local issue concerning land ownership over parts of the Matsa tenements within the current area of drilling*
- *Matsa expects a prompt resolution to the matter*

### CORPORATE SUMMARY

#### Executive Chairman

Paul Poli

#### Director

Frank Sibbel

#### Director & Company Secretary

Andrew Chapman

#### Shares on Issue

144.15 million

#### Unlisted Options

8.44 million @ \$0.25 - \$0.40

#### Top 20 shareholders

Hold 51.78%

#### Share Price on 18 January 2016

15.5 cents

#### Market Capitalisation

\$22.34 million

For personal use only

## DIAMOND DRILLING PROGRAMME

Matsa Resources Limited (“Matsa” or “the Company” ASX:MAT) is pleased to provide an update on diamond drilling at the Company’s Siam 1 copper prospect in Central Thailand. A total of 9 diamond drillholes for a total of 1,500 - 2,300m of drilling is planned to test 5 high priority IP anomalies. (Refer MAT announcements to ASX 16<sup>th</sup> November 2015 and 11<sup>th</sup> December 2015).

The objective of the drilling is to test the concept that IP targets represent copper sulphide mineralisation underlying/adjacent to areas of copper mineralised float and associated soil copper anomalies. A description of exploration methods used, tenement status and assay procedures is provided as Appendix 1.

Drilling completed to date is summarised in Table 1.

Prospect	Drillhole	Target	East	North	Dip	Azimuth	Depth
Siam1W	15SCDD001	5	7695	74196	-60	140	227.1
Siam1W	16SCDD002	3	7387	75243	-60	90	83

**Table 1: Siam 1W, diamond drillhole progress**

**Drillhole 15SCDD001** was designed to test IP target 5. Poor ground conditions led to the hole being stopped at 227.1m which coincides approximately with the depth at which the IP target was expected to be intersected. Pyrite (iron sulphide) rich sediments were intersected below 53m to the end of the drillhole and are interpreted to be the likely source of IP anomaly 5.

**Drillhole 16SCDD002** was located to test IP target 3. This drillhole intersected basaltic andesite lavas to its current depth of 83m, which is well above the depth of 200m at which the IP target is expected to be intersected. Visible finely disseminated native copper mineralisation with grain size generally <0.5mm, was observed throughout the section drilled to date.

A local dispute concerning which provincial government department has jurisdiction over the land underlying the current drill site location emerged after commencement of drillhole 16SCDD002. As such, Matsa has voluntarily suspended drilling until the issue is resolved. Matsa is co-operating with all parties and expects the matter to be resolved within a short timeframe.

Executive Chairman Mr Paul Poli stated, “We are very encouraged with the first geological observations coming from the diamond core and are very pleased with progress so far.”

Mr Poli added, “a significant majority of locals and business persons understand the significant economic, health and life style benefits that would be delivered to all persons in the region should a successful mine be developed in the area. The large majority of Thai’s are keen to see the land management matter resolved.”

## SIAM COPPER PROJECT BACKGROUND

The Siam Copper project comprises 20 SPL's and 29 SPL applications for an area of 635 km<sup>2</sup>. The licences cover strongly anomalous copper values seen in regional stream sediment samples which were collected by the Thailand Department of Mineral Resources (DMR). The area comprises mostly cleared farmland with well-developed infrastructure including all weather roads and power supply.

Subsequent stream sediment sampling carried out by Matsa confirmed key results with copper values up to 326ppm Cu as previously announced (*eg MAT report to ASX 31st July 2011*).

Based on this data, a number of stream sediment anomalies were identified for detailed evaluation with Matsa's initial focus on the Siam 1 and Siam 2 prospects.

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
<b>Sampling techniques</b>	<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. Auger soil samples were collected using a portable power auger during the quarter. A sample is collected at a reasonably consistent colour change interpreted the base of residual soil over weathered rock. Typically auger sample depths are > 0.5m. Stream sediments samples represent active bed load in defined drainage channels <b>Pool sampling</b> refers to collection of samples in flat lying heavily cultivated areas (eg areas of rice cultivation) where there is a strong possibility of extensive overbank silt accumulation at surface, masking normal geochemical dispersion. Pools are the local term for excavations for water management. These sites contain exposures of the weathered profile enabling collection of typically a vertical channel sample of B horizon material equivalent to the auger sample above and well below transported overbank silts.
	<i>Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Surface geochemical sample locations are picked up using hand held GPS and recorded onto database. Soils and streams: Sufficient bulk (unscreened) sample is bagged in the field to provide 100g of -80# fraction at the laboratory and 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. Rock samples may not be representative but are selected as being visually interesting and distinctive.
	<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 (Thailand)</u>  Bulk 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. Auger Samples are assayed using a 4 acid digest and read by ICP OES. This provides significantly lower detection limits than the three acid digest above for target base metals and selected pathfinder assay. All auger assays to date have been carried out by ALS Global Perth.

Criteria	JORC Code explanation	Commentary
		<p><u>Rock Samples</u></p> <p>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.</p> <p>Limited hand held XRF analysis carried out on rock samples as a semi quantitative way to confirm their copper bearing character.</p>
<b>Drilling techniques</b>	<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>	Diamond Drilling, HQ reducing to NQ once full water return is established.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Core measured and recovery recorded as a percentage of full recovery. Core marked up in 1m intervals
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	HQ triple tube technique in the weathered zone to ensure full recovery of friable core. Short drilling runs through broken ground minimise core loss through regrinding and washing.
	<i>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.</i>	Insufficient drilling completed to make this assessment.
<b>Logging</b>	<i>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.</i>	The objective is for logging to be carried out to the standards required for incorporation into a resource estimate.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging comprises a qualitative description of lithotypes which are coded for incorporation into industry standard database system.
	<i>The total length and percentage of the relevant intersections logged.</i>	N/A
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Core is planned to be cut with ½ core submitted for assay. Mineralized intervals assayed continuously with sample intervals based on geological boundaries and not exceeding 4m in length.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	NA

For personal use only

Criteria	JORC Code explanation	Commentary
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation at the laboratory has been designed to deal with intervals with and without coarse native copper mineralisation.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Duplicate core intervals will be submitted on the basis of 1 duplicate per 20 samples.
	<i>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.</i>	Duplicate samples submitted
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Potential for coarse native copper which will require a special sample preparation technique to enable accurate assay results. Samples containing coarse native copper will be identified before sample prep is carried out.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Assaying is carried out at Certified Laboratories in Thailand or Australia. Soil and Auger samples are screened to -80#, pulverised and assayed using aqua regia digest or 4 acid digest and measured with ICP-OES. Rock samples are analysed using the same method. Diamond drill core is sampled using ½ core on geologically defined intervals. Core is crushed, pulverised, screened at 250um and assayed using 4 acid digest and ICP-OES. Samples with noted visible copper also have screen oversize analysed.
	<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>	Duplicate samples to be submitted for diamond core. Handheld XRF QAQC includes use of duplicates, standards and blanks.
<b>Verification of sampling and assaying</b>	<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>	Not applicable at this stage
	<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.
<b>Location of data points</b>	<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>	All drill collars established to within 5m accuracy by hand held GPS. Downhole surveys by single shot Eastman Camera at 30m intervals



Criteria	JORC Code explanation	Commentary
	<i>Specification of the grid system used.</i>	Thailand 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.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Diamond drill core. Mineralised intervals <4m, continuous samples to geological boundaries. Unmineralised intervals, 20cm piece of whole core per 4m of core length.
	<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>	Assay spacings backed up by PXRF readings at 1m intervals as well as detailed geological, magnetic logs
	<i>Whether sample compositing has been applied.</i>	Remaining core may be resampled at shorter intervals in required.
<b>Orientation of data in relation to geological structure</b>	<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>	Best estimate based on surface mapping and geophysical interpretation.
	<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>	Not applicable at this stage
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Core removed from drill site to secure locked facility each day. 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.
<b>Audits or reviews</b>	<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
<b>Mineral tenement and land tenure status</b>	<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> IP Survey carried out on three granted Special Prospecting Licences 41/2558, 39/2558 and 44/2558 in Petchabun Province. Tenements are held by Siam Copper Resources Ltd a wholly owned subsidiary of Matsa Resources Limited. Tenements have been granted for a period of 5 years subject to completion of agreed exploration programme. The tenements are made up of a large number of agricultural blocks either as leasehold or

Criteria	JORC Code explanation	Commentary
		private land. There are also a number of blocks administered by the Department of Forestry. Landowner consents have been obtained for exploration carried out to date.
	<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.
<b>Exploration done by other parties</b>	<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 electromagnetic and magnetic survey carried out mostly on EW lines nominally 400m apart.
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<u>Thailand</u>  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.  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.
<b>Drill hole Information</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> <p><i>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.</i></p>	Drillholes are summarised in included diagrams.
<b>Data aggregation methods</b>	<i>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.</i>	



For personal use only

Criteria	JORC Code explanation	Commentary
	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.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable at this stage
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration 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').	
<b>Diagrams</b>	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.	Suitable summary plans have been included in the body of the report.
<b>Balanced reporting</b>	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.	Not required at this stage.
<b>Other substantive exploration data</b>	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.	Ground magnetic surveys Thailand. Inhouse Surveys carried out using Geometrics G856 magnetometers. Diurnal drift correction carried out using one magnetometer as base station and one roving unit. Datapoints recorded at 10m intervals along cut lines with survey control by handheld gps. Data reduction and modelling and image processing carried out by Geophysical consultants Southern Geoscience Corp. IP Surveys Thailand Contractor AusThai Survey Type 2D Dipole Dipole IP survey Equipment GDD GRx8- 32 16 channel Receiver Geophysical Receiver system <input type="checkbox"/> 2 x GDD 5Kva Transmitter systems in synch (equivalent 10Kva system) <input type="checkbox"/> 2 x 5.5KW generators <input type="checkbox"/> Hand held 12 channel GPS system. Survey Parameters Line spacing ~200m, dipole (n) spacing 75m
<b>Further work</b>	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.	Included in the main body of the report.