PAN ASIA METALS

ASX Announcement | August 31, 2021

Geothermal Li & Hard Rock Li-Sn Initiative
Kata Thong Lithium Project, Thailand

HIGHLIGHTS

- PAM lodges five (5) Special Prospecting Licence Applications (SPLA) in the Phang Nga Province in southern Thailand – the **'Kata Thong'** Lithium Project.
- Two (2) of the SPLAs contain geothermal fields which are highly prospective for geothermal style lithium.
- One (1) of the geothermal fields abuts the lithium rich Kata Khwam granite batholith, a ~145km^2 granite intrusion with rock-chip assays up to 2,700ppm Li_2O.
- Four (4) of the SPLAs are highly prospective for lepidolite style lithium and tin, with stream sediment assays returning strong Li_2O values from target catchments and each SPLA containing at least one (1) historic tin mine.
- Kata Thong positions PAM as a potential geothermal lithium producer and provides PAM with potential to expand its hard rock lepidolite style lithium holdings.
- Kata Thong positions PAM as a potential low to zero carbon emitter via the use of geothermal energy and energy from the nearby 240MW Rajjaprabha Hydro-electric Power Station.
- Kata Thong enhances PAM's potential to be positioned at or near the bottom of the lithium cost curve.
- Kata Thong potentially positions PAM to have a Zero Carbon Footprint.

Battery and critical metals explorer and developer **Pan Asia Metals Limited (ASX: PAM) ('PAM' or 'the Company')** is pleased to report the addition of geothermal lithium and hard rock lithium and tin exploration block applications to its project portfolio.

Pan Asia Metals has embarked on a new, complementary initiative that will focus on the potential for geothermal hosted lithium and associated geothermal energy in southwest Thailand. In addition to geothermal lithium the areas PAM has identified and secured by application are also highly prospective for hard-rock lithium and tin deposits.

Both the geothermal and hard rock aspects of this initiative focus on the renewable energy sector and are commensurate with Thailand's National and Provincial government policies.

Pan Asia Metals Managing Director Paul Lock said: *"The Kata Thong applications are the first of a series of target exploration blocks that PAM is looking to secure. PAM's strategy is to identify and develop low cost and low carbon emission lithium projects which have the potential to position PAM as a low cost producer delivering value added battery grade lithium products into the emerging Thai and well established Asian EV and LIB sectors. The geothermal aspects of the Kata Thong applications are particularly interesting, the geothermal field located in the KT West block abuts the northern end of the lithium enriched Kata Khwam granite, with lithium grades in rock chips up to 2,700ppm Li_2O, which is supported by PAM's nearby stream sediment sampling reporting assays up to 1,464ppm Li_2O. The potential for a geothermal style lithium project is strong, with the underlying geothermal system similar to that of Cornish Lithium except that at Kata Thong the granite is exposed at surface with nearby geothermal discharges up to 78°C at surface and a hotter geothermal system modelled to depths down to 2km. In addition, the Kata Thong East and West applications are highly prospective for lepidolite style lithium and tin. We see this as complementary to the Reung Kiet Lithium Project where we anticipate estimating a maiden Mineral Resource in November and a Scoping Study soon after. At Reung Kiet our Phase 1 objective is a 5,000-10,000tpa lithium carbonate or hydroxide plant. Our objective is to increase this to 20,000tpa and potentially greater through additional discovery. PAM is rapidly positioning itself with projects that have the potential to be placed at or near the bottom of the cost curve, which provide PAM the option to move past the mine gate and value add, and that have the potential for a low or Zero Carbon Footprint."*

PAM has lodged 5 (five) Special Prospecting Licence Applications (SPLA) in the Phang Nga Province in southern Thailand covering approximately 45km². The Kata Thong Project comprises five new SPLA's that are centred approximately 35km NNE of the emerging Reung Kiet Lithium Project and 50km SW of the Rajjaprabha Hydro-electric Power Station (see Figure 1). The new applications complement PAM's Reung Kiet Lithium Project and will allow PAM to share its resources across the projects. At Reung Kiet PAM is targeting a maiden Mineral Resource and PAM's aim is to establish an initial Phase 1 plant capable of producing 5,000-10,000tpa lithium carbonate or hydroxide. The Kata Thong applications position PAM to potentially expand on this.

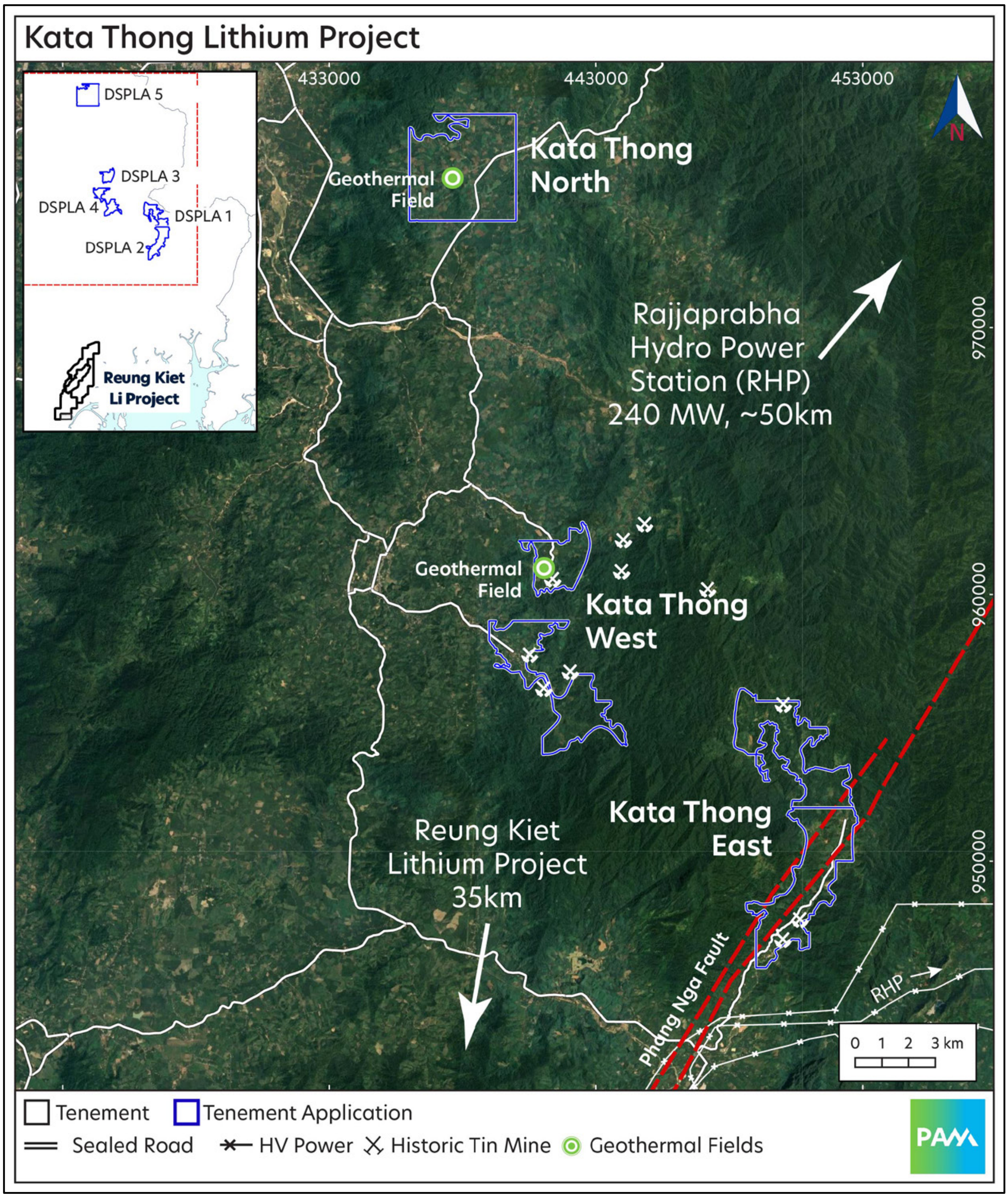

Figure 1: Kata Thong Lithium Project, Phang Nga Province, southern Thailand

Kata Thong is potentially transformative for the Company. Already, lepidolite style lithium has the potential to place PAM at the bottom of the cost curve, and the nearby 240MW Rajjaprabha Hydro-electric Power Station provides PAM the potential to produce lithium products with a near zero carbon footprint. Kata Thong provides

PAM the potential to produce geothermal lithium using geothermal energy with a Zero Carbon Footprint.

At present there are several geothermal projects in the global lithium peer group, the most prominent being Vulcan Energy Resources Limited's (ASX:VUL) geothermal project in the Upper Rhine Valley, Germany; Cornish Lithium Limited's (private) United Downs Deep Geothermal Project in Cornwell, UK; and Controlled Thermal Resources Limited's (private) Hell's Kitchen Lithium and Power project in the Imperial Valley, California.

The geothermal fields in PAM's Kata Thong application areas are similar in style to Cornish Lithium's, they are of similar depth except at Kata Thong the geothermal discharge exit temperatures can be up to 78°C vs 51°C at 420m depth for Cornish Lithium, this means there is a strong prospect that geothermal energy can be generated from PAM's Kata Thong geothermal fields.

Although PAM is highly confident that it can produce lithium products from lepidolite with a near zero carbon footprint, geothermal lithium provides PAM the potential to produce lithium products with a Zero Carbon Footprint. The focus on carbon footprint has been steadily increasing over the last decade, with vehicle manufacturers increasingly focused on their supply chain carbon footprints to meet market expectations and increase the credibility of their electric vehicle offerings. We believe this will create a schism in the market, with low to zero carbon lithium projects attracting finance with more ease and their lithium products attracting a price premium to the broader market. Having the potential ability to produce low carbon footprint lithium products via lepidolite mining and processing using hydro power places PAM at an advantage, moving to a Zero Carbon Footprint will transform the Company.

PAM is focusing on that part of the Southeast Asian tin-tungsten belt which contains lithium enriched granites and which is geothermally active, both a requirement for geothermal lithium. PAM expects to announce further project acquisitions in the coming months, which will enhance this initiative.

The Kata Thong applications are now at the Federal level and will be prepared for final approvals by the Department of Primary Industry and Mines and then the Minerals Act Committee. Upon receipt of exploration licenses in Thailand no further permissions are required other than landholder access.

Previous Mining and Exploration

The Kata Thong project area and broader region has an extensive history of tin production dating back to the 16th century. The Phuket-Phang Nga-Takua Pa tin field has recorded production of at least 400,000 tonnes of tin in concentrates from 1961-1990 (Nakapadungrat and Maneenai, 1993). Ilmenite, monazite, columbite-tantalite, zircon and wolframite were common by-products. Lepidolite (lithium mica) also became a by-product at some mines.

Previous mining is dominated by onshore and offshore alluvial deposits. Tin production from primary sources is generally limited to soft rock and eluvial mining using hydraulic methods. Extensive dredging was conducted in many downstream locations draining primary tin mineralisation.

There is very little record of previous exploration in the project area. This supports the premise that little modern exploration has been undertaken in the region, especially for primary hard-rock deposits, let alone geothermal hosted lithium. There have been several geological reconnaissance and regional studies undertaken including Garson et al, 1975, Nakapadungrat et al, 1988, Nakapadungrat and Maneenai 1993, Pollard et al 1995 and Schwartz et al 1995.

Assessments of the potential for geothermal energy in parts of the project area have been assessed since the late 1970's. A more recent and useful study is 'Ngansom and Duerrast, 2019'.

Work by Pan Asia Metals

PAM has conducted extensive review and compilation of relevant historic data. Stream sediment sampling and reconnaissance mapping conducted by Garson et al 1975 revealed anomalous lithium in stream sediments and the presence of pegmatites in the Kata Thong project area (see Figure 2).

PAM has conducted two phases of stream sediment sampling, the first of which revealed extensive Li_2O anomalism associated with tin and other pathfinders such as Rb and Ta. More recently PAM completed follow-up stream sediment sampling and identified additional Li pathfinder anomalies, especially Rb (see Figure 2) extending further up catchments. Lithium analysis for these samples is awaited. Rb and other pathfinder results are generated from hand held XRF analysis.

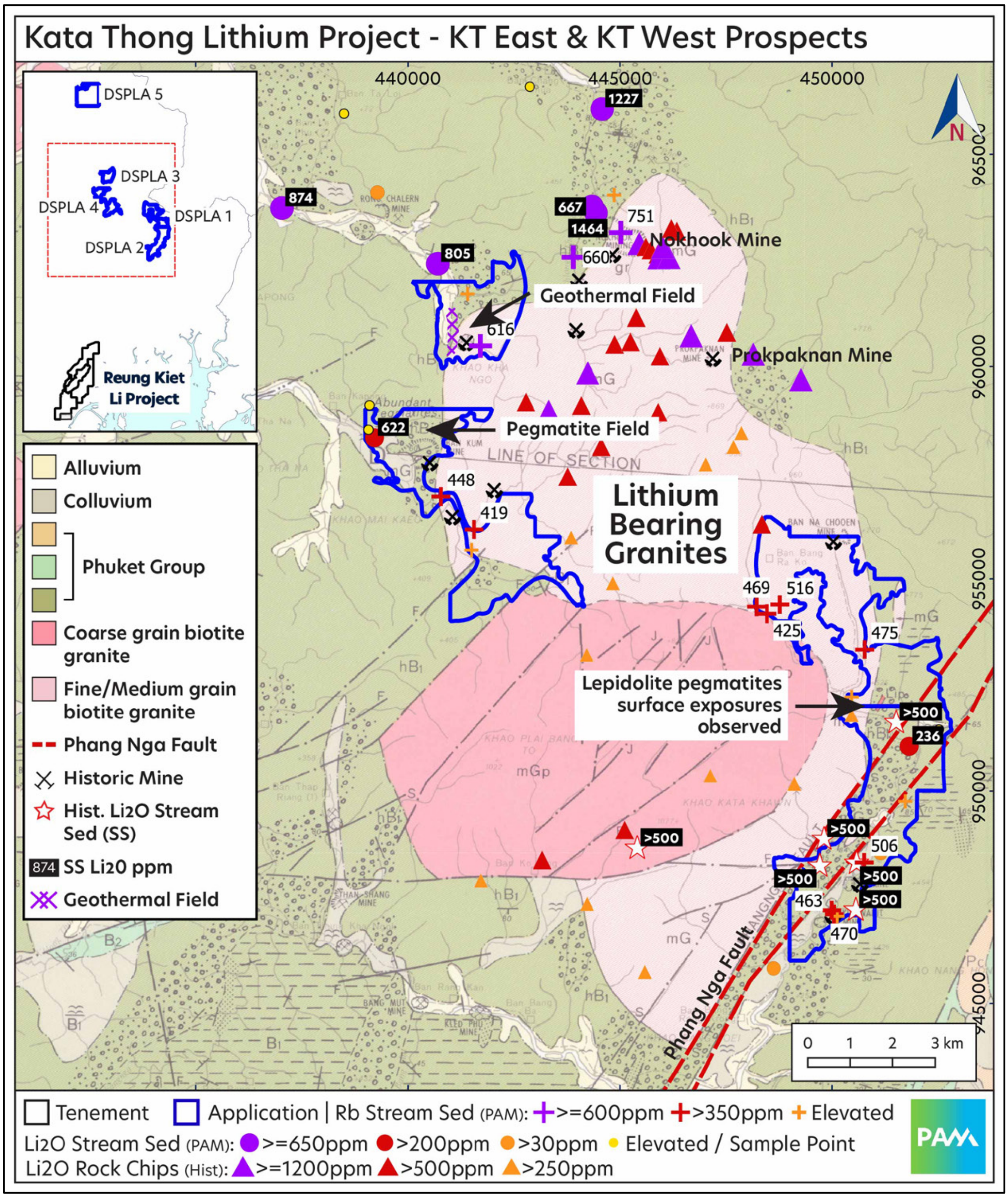

Figure 2: Kata Thong Lithium Project, KT West and KT East Prospects (modified from Garson et al, 1975)

PAM has utilised rock chip sampling data reported by Nakapadungrat et al 1988 for the Kata Khwam batholith. These data reveal significant lithium enrichment in this granite, especially in the northern parts where more evolved/fractionated granites are situated (see Figure 2). Lithium enrichment in this part of the granite occurs over an area of at least 25km^2. The dataset reveals 26 samples in this area yielded an average of 0.11% Li_2O, with 14 samples ranging from 0.11-0.27% Li_2O (see Figure 2). This supports the model for geothermal and hard-rock lithium prospectivity in the area.

PAM's work on the geothermal systems consists of literature review resulting in the concept of prospectivity for lithium in a geothermal system emanating from a deep heat source with fluid pathways through underlying geology that is significantly enriched in lithium.

Geology and Mineralisation

The project area is situated in the Southeast Asian tin-tungsten belt (SEATTB) which is a north-south elongate zone approximately 3500 km long and up to 500 km wide, extending from south China, eastern Myanmar and Thailand to Peninsular Malaysia and the Indonesian Tin Islands. The SEATTB represents a distinct globally significant metallogenic province that yielded around 75% of the world's tin supply during the twentieth century, the belt is still responsible for approximately 42% of global tin production (USGS, 2020).

Most of the granites in the SEATTB can be grouped into four provinces, based on petrographic and geochronological features, with a general younging from east to west as a result of complex and long-lived collisional tectonics active from the late Permian to the early Tertiary, which led to extensive granitic magmatism of a particular style giving rise to the extensive tin +/- tungsten and related mineralisation.

The Kata Thong project area is located in the Western Granitoid Province, the youngest province of the SEATTB. Granites in the project region belong to the Phuket Supersuite which extends through western Thailand from Phuket, north to Ranong (Pollard et al 1995), and is responsible for most of the historic tin production in Thailand.

The Kata Thong project is dominated by the Kata Khwam granite (KKG), which is about 20km long and up to 10km wide. The Kata Khwam granite intrudes Permo-Carboniferous metasediments of the Phuket Group (see Figure 2). The granite can be subdivided into five sub-types (Pollard et al, 1995).

There are three distinct styles of tin and related mineralisation in the region, all of which are proximal to the more fractionated S-type granites. These styles include pegmatite dyke and vein swarms which, as well as cassiterite, can also contain Li-Ta-Nb mineralisation. The second type is related to muscovite and tourmaline-muscovite alteration, which contains high background levels of lithium. The third style of mineralisation is related to simple quartz-cassiterite-wolframite veins. All of these mineralisation styles occur in and around the KT project area.

Kata Thong West

The Kata Thong West (KT West) prospect consists of two (2) licence applications (DSPLA's 3 and 4) covering an area of approximately 12km^2 (see Figure 3). The SPLA's are located at or near the contact of the Kata Khwam granite and surrounding meta-sediments of the Phuket Group. The area is cut by the NE trending Khlong Mauri Fault Zone (KMFZ). The SPLA's and surrounds host several historic tin mines, most of which are documented as being associated with pegmatite such as the old Kha Ngo and Juti mines (Schwartz, 1995). Many of these old mining areas are still visible from aerial imagery such as Google Earth.

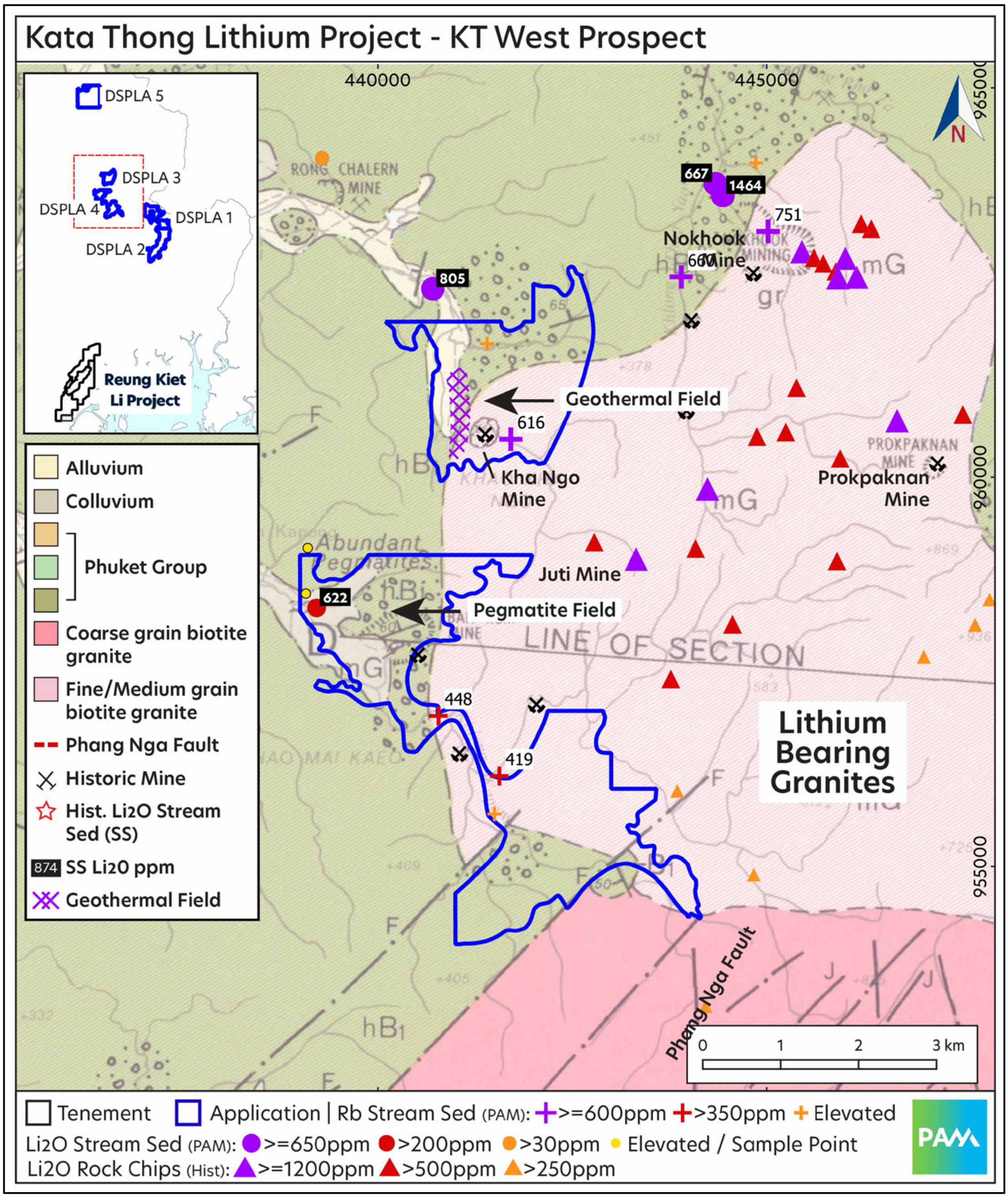

Figure 3: Kata Thong Lithium Project, KT West Prospects

DSPLA3 hosts the Kapong geothermal field, which occupies an area of about 1000m x 200m straddling the banks of the Plai Phu River (see Figure 3 and Photo 1). The Kapong geothermal field has been the subject of several studies assessing the potential to develop geothermal power. These studies have included geophysics such as resistivity and magnetics, temperature measurements and chemical analysis of geothermal discharges and associated modelling.

Photo 1: Geothermal spring adjacent to Plai Phu river, KT West.

The most recent study was by (Ngansom and Duerrast, 2019). They report the geothermal discharge has exit temperatures of up to 78°C. The water is slightly alkaline with generally low-moderate levels of TDS, Na, K, Ca and Si. Surface electrical geophysics, (VES and MT), were used to model sub-surface hot water pathways and reservoirs. Zones of low resistivity indicate areas of hotter water-rock systems at depths from 1km to possibly greater than 2km. Deep resistivity values are connected along NE-SW trending larger faults planes associated with the KMFZ.

Residual magnetic intensities derived from aeromagnetics suggest magnetic bodies at depth that are likely to be granite intrusives, representing the sub-surface portions of the Kata Khwam granite. Isotope signatures for H and O confirm that the geothermal waters are of meteoric (surface) origin, which penetrate deep along the faults and fractures down into the granites where the water is heated and circulated back towards the surface. A negative Eu anomaly in the geothermal surface waters has been induced by the water-rock interaction between the meteoric waters and the granite rocks at depth. Silica geothermometers give an average modelled value of 123°C for the reservoir temperature representing lower values than most of the other cation geothermometers, and so the reservoir may be hotter than 123°C. It is likely that the reservoir depth is deeper than 1 km with likely higher reservoir temperatures down to at least 2km. Ngansom and Duerrast, 2019 rate this geothermal field highly as a potential source of geothermal energy. A schematic model of the system is shown in Figure 4.

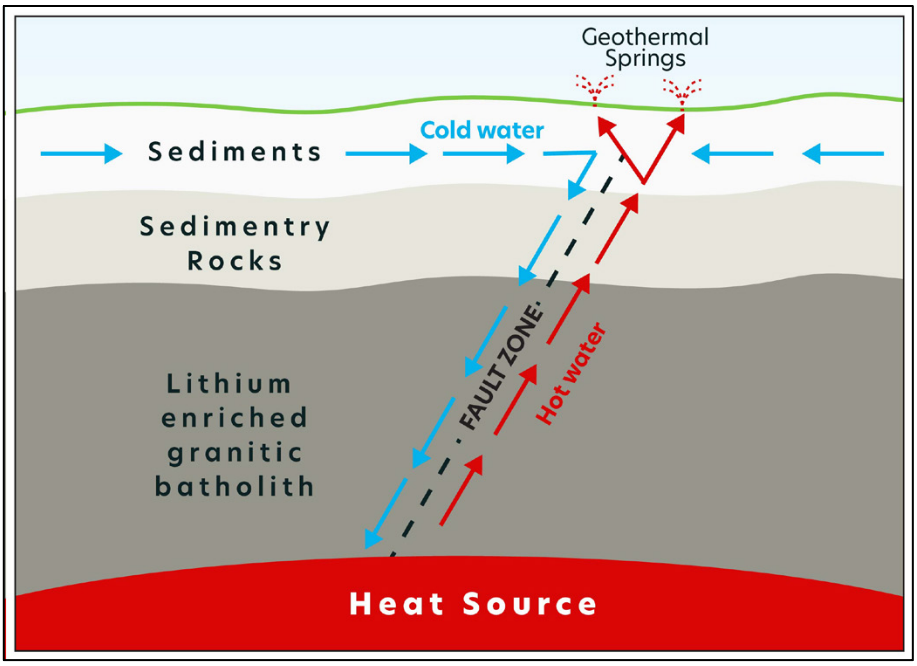

Figure 4: Conceptual model of the KT West geothermal system (modified from Ngansom and Duerrast, 2019)

Kata Thong East

The Kata Thong East (KT East) prospect consists of two (2) SPLA's (DSPLA 1 and 2) located on the eastern side of the Kata Khwam granite where it is in contact with meta-sediments of the Phuket Group in association with the Phang Nga Fault (see Figure 5). The area hosts several historic tin mines and prospects.

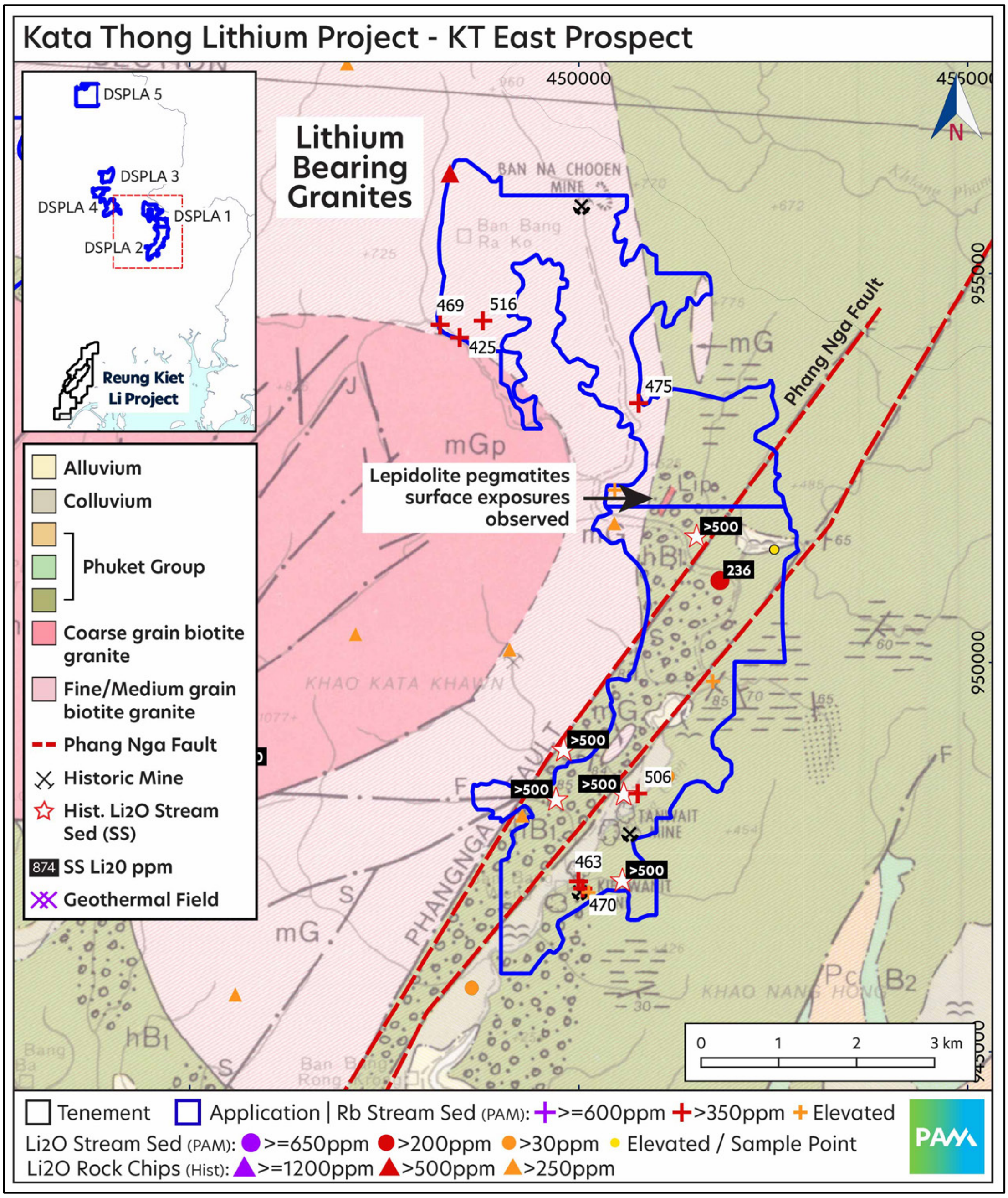

Figure 5: Kata Thong Lithium Project, KT East Prospects (modified from Garson et al, 1975)

There is a documented occurrence of lepidolite pegmatite in the area (Garson et al, 1975) which is located on the boundary between DSPLA1 and 2 (see Figure 5). PAM's stream sediment sampling in the area has located anomalous Li and Rb values. This is also supported by historic stream sediment sampling (Garson et al, 1975). The work by Nakapadungrat et al 1988 would indicate that in this area the Kata Khwam contains still significant, but less elevated Li contents as compared to the northern parts of the granite.

Kata Thong North

The Kata Thong North (KT North) prospect is situated on SPLA 5 where a geothermal system is present at surface. The prospect is located approximately 15km north of the KKB (see Figure 1). The prospect area is dominated by metasediments of the Phuket Group. It is likely that a granite intrusive is present at depth in this area and that heat from this granite is driving the geothermal system. A schematic model of this system is shown in Figure 6.

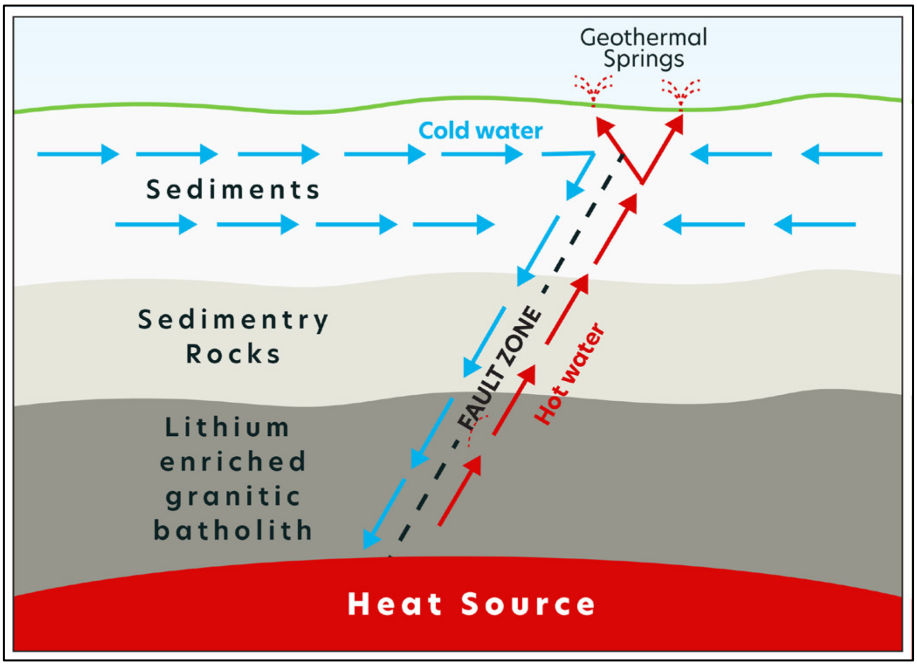

Figure 6: Conceptual model of the KT North geothermal system (modified from Ngansom and Duerrast, 2019)

Planned work

PAM plans to conduct additional exploration focusing on assessing the prospectivity for both geothermal and hard-rock lithium. PAM will be partnering with Thai universities with local expertise in geothermal systems and will engage internationally reputable geothermal expertise to assist with design and execution of exploration programs to assess the geothermal lithium and power generation potential of the project area. This work is likely to include extensive data collation, surface water sampling and conceptual geo-hydrology modelling of the system. PAM will also conduct stakeholder engagement and consider the key environmental, social, regulatory and infrastructure issues surrounding a project of this nature.

Based upon the results of the above PAM may then proceed to an exploration phase. This is likely to include geophysics such as resistivity, magnetics, gravity, seismic and additional hydro-geochemistry. Assessment and further modelling of this data may support the drilling of wells in order to fully assess the geothermal/lithium resource and inform conceptual production scenarios, before leading into full scale pre-production/production drilling and associated feasibility work.

The exploration for hard-rock Li +/- Sn will focus on identifying and sampling pegmatites and other mineralised occurrences in the project area. This will involve mapping and geochemical sampling of rocks and soils and an assessment of potential dimensions and grade of the targets with a view to drill testing of identified high priority targets.

PAM has been conducting additional studies to investigate potential for both geothermal and hard-rock lithium prospectivity in other areas within Thailand. The Company expects to report additional opportunities with these initiatives in the near term.

Ends

Authorised by:
Board of Directors

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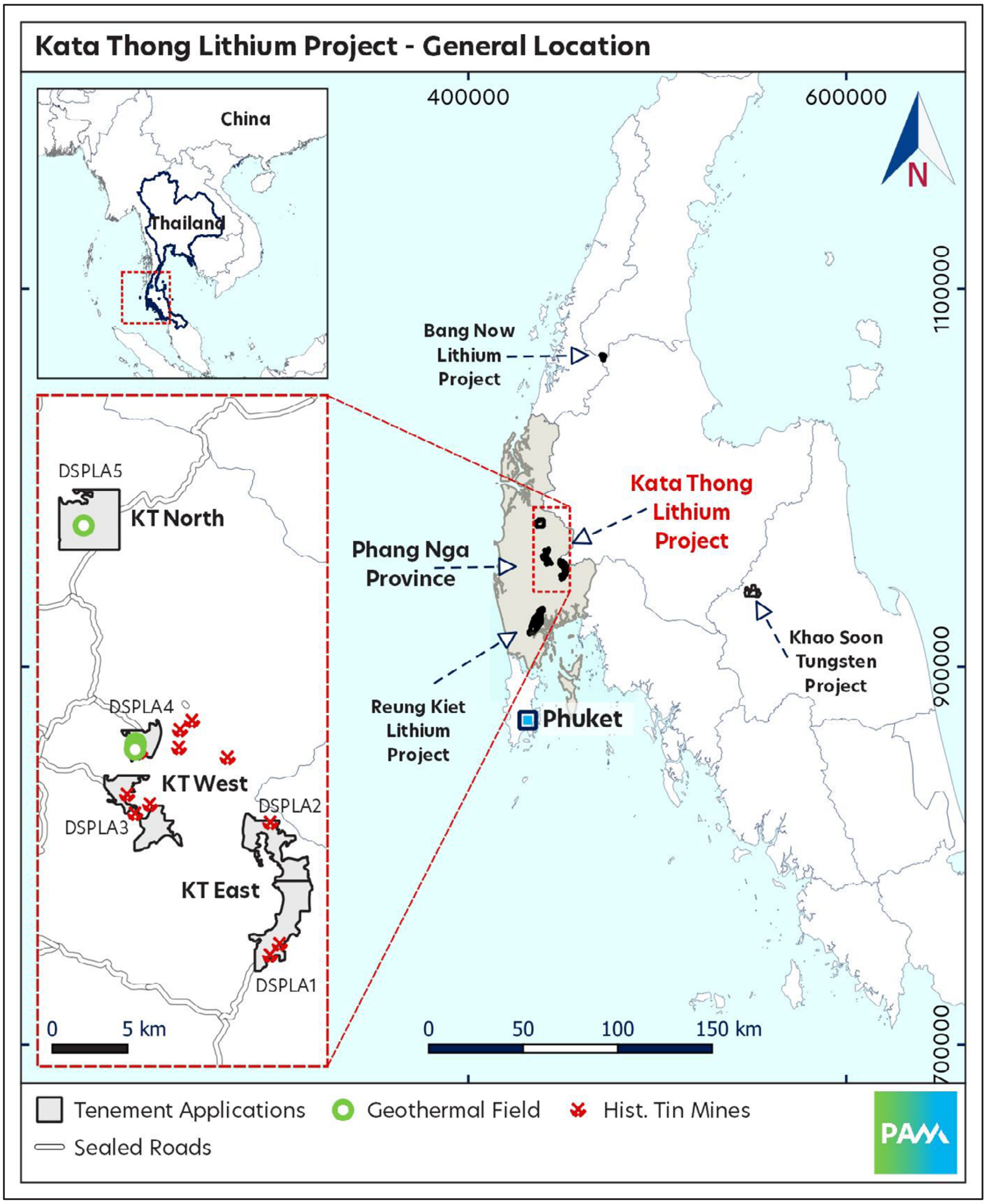
About the Kata Thong Lithium Project

The Kata Thong Lithium Project is a geothermal lithium and hard rock lithium-tin project located about 100km north-east of Phuket in the Phang Nga Province in southern Thailand. Pan Asia holds a 100% interest in 5 Special Prospecting Licence Applications (SPLA) covering about 45km².



Regional map: Location of Phang Nga and the Kata Thong Lithium Project

About Pan Asia Metals Limited (ASX:PAM)

Pan Asia Metals Limited (ASX:PAM) is a battery and critical metals explorer and developer focused on the identification and development of projects in Asia that have the potential to position Pan Asia Metals to produce metal compounds and other value-added products that are in high demand in the region.

Pan Asia Metals currently owns two tungsten projects and three lithium projects. Four of the five projects are located in Thailand (one under application) fitting Pan Asia Metal's strategy of developing downstream value-add opportunities situated in low-cost environments proximal to end market users.

Complementing Pan Asia Metal's existing project portfolio is a target generation program which identifies desirable assets in the region. Through the program, Pan Asia Metals has a pipeline of target opportunities which are at various stages of consideration. In the years ahead, Pan Asia Metals plans to develop its existing projects while also expanding its portfolio via targeted and value-accretive acquisitions.

To learn more, please visit: www.panasiametals.com

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Competent Persons Statement

The information in this Public Report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr David Hobby, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hobby is an employee, Director and Shareholder of Pan Asia Metals Limited. Mr Hobby has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity that 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. Mr Hobby consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

Various statements in this document constitute statements relating to intentions, future acts and events which are generally classified as “forward looking statements”. These forward looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other important factors (many of which are beyond the Company’s control) that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed in this document. For example, future reserves or resources or exploration targets described in this document may be based, in part, on market prices that may vary significantly from current levels. These variations may materially affect the timing or feasibility of particular developments. Words such as “anticipates”, “expects”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “potential” and similar expressions are intended to identify forward-looking statements. Pan Asia Metals cautions security holders and prospective security holders to not place undue reliance on these forward-looking statements, which reflect the view of Pan Asia Metals only as of the date of this document. The forward-looking statements made in this document relate only to events as of the date on which the statements are made. Except as required by applicable regulations or by law, Pan Asia Metals does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

Important

To the extent permitted by law, PAM and its officers, employees, related bodies corporate and agents (Agents) disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of PAM and/or any of its Agents) for any loss or damage suffered by a Recipient or other persons arising out of, or in connection with, any use or reliance on this document or information.

APPENDIX 1 - JORC Code, 2012 Edition – Table 1

Kata Thong Project, surface geochemistry

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, downhole gamma sondes, handheld XRF instruments, etc). Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of determination of mineralisation that are Material to the Report (eg 'RC drilling used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'; or where there is coarse gold that has inherent sampling problems).	Stream sediment samples are collected from the banks or channels of active and ephemeral streams and rivers. Samples of about 3-5kg are sieved to -1mm. The -1mm sample is retained for assaying. Stream sediment samples are collected to provide geochemical information of the lithologies and mineralisation with the catchment being sampled. Samples were collected by PAM employed field geologists. Then samples are naturally dried and analysed with hhXRF. A 250g sub-sample is sent to either ALS Chemex in Brisbane or SGS in Perth for analyses. Internal QAQC standards, duplicates and blanks were inserted by the laboratory.
.Drilling techniques	Drill type (eg core, reverse circulation, etc) and details (eg core diameter, triple tube, depth of diamond tails, face-sampling bit, whether core is oriented; if so, by what method, etc).	No drilling undertaken
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery, ensuring representative nature of samples. Is sample recovery and grade related; has sample bias occurred due to preferential loss/gain of fine/coarse material?	Not drilling undertaken
Logging	Have core/chip samples been geologically/geotechnically logged to a level of detail to support appropriate resource estimation, mining studies and metallurgical studies. Is logging qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	Samples are not "logged", however sample type and site details are recorded. Soil samples are described and the site characteristics sample type and depth are recorded. Descriptions are a combination of qualitative and quantitative data. Photographs are taken at most sample sites.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample	If core, cut or sawn and whether quarter, half or all core taken. If non-core, riffled, tube sampled etc and sampled wet or dry? For all sample types, nature, quality and appropriateness of sample preparation technique. QAQC procedures for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure sampling is representative of the material collected, e.g. results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	Samples are riffle split down to about 250g. The sample preparation technique the pulverisation of the entire 250g sample. The laboratory reports particle size analysis for crushed and pulverised samples about every 25 samples. PAM does not conduct QA-QC for sub-sampling stages. The sample sizes are considered appropriate for the material being sampled.
Quality of assay data and laboratory tests	Nature, quality and appropriateness of the assaying and laboratory procedures used; whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments etc, parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied, their derivation, etc. Nature of QAQC procedures adopted (eg standards, blanks, duplicates, external laboratory checks); whether acceptable accuracy levels (ie lack of bias) / precision established.	The samples were dried, then pulverized to 90% passing 75 microns. For SGS samples, preparation is done at an SGS lab in Bangkok. For ALS samples, preparation was completed at ALS in Laos. 100g -75 micron pulps are then dispatched for analysis. All -1mm and returned samples were analysed using a hand held Olympus Vanta Geochem 3 mode, with dual beam analysis for 30 seconds each. Rb, K, Mn assays show very good correlation with lab derived Li analysis. Other elements of interest also exhibit good correlation with lab results. Samples were digested by either mixed acid digest or sodium peroxide with ICP finish by ALS Chemex in Brisbane for Li and at times also Sn, Ta and Rb. Samples sent to ALS were prepared by sodium peroxide fusion or mixed acid digest with ICP-MS finish at SGS in Perth or Vancouver for Li and sometimes Sn, Ta and Rb. Internal laboratory standards, splits and repeats were used for quality control. PAM did not insert any QA/QC samples.
Verification of sampling and assaying	Verification of significant intersections by independent / alternative company personnel. The use of twinned holes.	Sample results have been checked by company Chief and/or Senior Geologists. Assays reported as Excel xls files and secure pdf files.

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Data entry carried out both manually and digitally by Geologists. To minimize transcription errors field documentation procedures and database validation are conducted to ensure that field and assay data are merged accurately. Following factor adjustments applied to assay data for reporting purposes: Li x 2.153 to convert to Li_2O Rb derived from hhXRF has a calibration applied of hhXRF Rb x 1.2 to more accurately "actual results". A correlation of 0.98 exists between lab derived Rb v hhXRF Rb values. Whereby the kkXRF consistently under calls Rb values across the grade ranges reported.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings etc used in estimation. Specification of grid system used. Quality and adequacy of topographic control.	Sample locations are from hand held GPS, with approximately 2-7m accuracy, sufficient for this type of exploration. All locations reported are UTM WGS84 Zone 47N. Topographic control is not required.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Is data spacing and distribution sufficient to establish degree of geological and grade continuity appropriate for Resource / Reserve estimation procedure(s) and classifications applied? Whether sample compositing has been applied.	Data spacing is relevant to the catchment size being sampled typically up to 15km2 progressing down to 2km2. Resources not being reported Sample compositing was not applied
Orientation of data in relation to geological structure	Does the orientation of sampling achieve unbiased sampling of possible structures; extent to which this is known/understood. If relationship between drilling orientation and orientation of mineralised structures has introduced a sampling bias, this should be assessed and reported if material.	Not relevant to stream sediment sampling
Sample security	The measures taken to ensure sample security.	Samples are securely packaged and transported by independent reputable carrier or transported by company personnel to sample preparation and facility. Pulp samples for analysis are air freighted to Australia or Canada in accordance with relevant laboratory protocols.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	None conducted at this stage of the exploration program.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Five Prospecting Licences all prefixed PL 1/2564 and named Rommani, Tha Nu, Le, Kaphong and Son Phraek after the Sub-districts which they encompass over a total area of about 341sq.km. These are non-exclusive licences and allow the holder to conduct geological, geochemical and geophysical prospecting, with minimal disturbance to the land and people. Inside these PL's PAM has lodged five Special Prospecting Licence Applications (DSPLA 1 to 5) covering an area of 45sq km. All PL's and SPLA's are situated in the PhangNga Province in southern Thailand and are registered to Thai company Siam Industrial Metals Co. Ltd. (SIM). Pan Asia Metals holds 100% of SIM. The tenure, once granted as Special Prospecting Licences and give the holder exclusive rights to minerals. SPL's are secure titles and there are no known impediments to obtaining necessary mining and environmental approvals to operate.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Institute of Geological Sciences, a precursor of the British Geological Survey (BGS) in the late 1960's conducted geological mapping, documenting old workings, surface geochemical sampling, mill concentrates and tailings sampling and some metallurgical test work.. All of this work is contained within Garson et al, 1975. This work appears to be of high quality and is in general agreement with Pan Asia's follow-up work. Data used to report lithium concentrations etc in the Khao Kata Khwa granite is derived from Pollard et al, 1995 with minor data from Nakapadungrat and Manenai, 1993. The studies are of high academic quality and appear in globally respected peer reviewed Journals. An appraisal of the KT West geothermal field is taken from Ngansom and Duerrast, 2019. This is academic work focussed on geophysical testing and basic hydro-chemistry. This work appears high quality and has appeared in peer reviewed publications.
Geology	Deposit type, geological setting and style of mineralisation.	The project is located in the Western Granite Province of the South-East Asia Tin Tungsten Belt. The KT project area sits adjacent and sub-parallel to the regionally extensive NE trending Khlong Mauri Fault Zone. The Cretaceous age

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		Khao Kata Khwan granite intrudes into Palaeozoic age Phuket Group sediments along the fault zone, Tin and related mineralisation occurs in the granite and adjacent to it in meta-sediments in areas of alteration and quartz viening. Pegmatite dyke swarms of LCT type intrude along the fault zone and also host Sn and related mineralisation.
Drillhole Information	A summary of information material to the understanding of the exploration results including a tabulation for all Material drill holes of: · easting and northing of the drill hole collar · elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar · dip and azimuth of the hole · downhole length and interception depth · hole length. If exclusion of this information is not Material, the Competent Person should clearly explain why this is the case.	Drilling is not being reported
Data aggregation methods	Weighting averaging techniques, maximum/ minimum grade cutting and cut-off grades are Material and should be stated. Where compositing short lengths of high grade results and longer lengths of low grade results, compositing procedure to be stated; typical examples of such aggregations to be shown in detail. Assumptions for metal equivalent values to be clearly stated.	Drilling is not being reported. Other data not applicable to sample type and methods reported. Where average grades are reported the lower cut-off grade and number of samples above and below cut-off are reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If mineralisation geometry with respect to the drillhole angle is known, its nature should be reported. If it is not known and only down hole lengths are reported, a clear statement to this effect is required (eg 'down hole length, true width not known').	Not applicable, sample results reported as individual surface samples collected from stream sediment to test for target element anomalism in the catchment. Not applicable
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts to be included for any significant discovery. These to include (not	Rockchip and stream sediment results are provided on relevant maps in the report.

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	be limited to) plan view of collar locations and appropriate sectional views.	
Balanced reporting	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.	Results of assays of samples collected are reported as appropriate in the text or on plans and sections.
Other substantive exploration data	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.	Not applicable
Further work	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 (if not commercially sensitive).	It is envisaged that geological mapping and sampling is warranted to investigate potential for mineralisation, Drilling will be undertaken if warranted. Appropriate diagrams appear in the report.