

## ASX/Media Announcement

Perth: 9 March 2017

### Alvarrões Lepidolite Mine Ore Access Agreement

- Ore access agreement entered into with Grupo Mota (“Mota”) over the operating Alvarrões lepidolite mine, Portugal
- Lepidico to undertake near-mine drilling at Alvarrões with the aim of delineating JORC Code compliant Resources for L-Max<sup>®</sup> plant feed
- Third Element Metals JV agreement to be replaced with a simplified cooperative structure

Lepidico is pleased to advise that it has signed a binding term sheet (“Term Sheet”) with Grupo Mota, owner and operator of the Alvarrões lepidolite mine, located near the city of Guarda in northeast Portugal. Lepidico will undertake near mine drilling at Alvarrões with the aim of delineating JORC Code compliant Mineral Resources as potential feed for future L-Max<sup>®</sup> processing facilities.

Under the agreement Lepidico will spend a minimum of €250,000 on exploration and drilling over an 18-month exclusive period. Alvarrões represents a drill ready target with open pit mining of lepidolite having occurred over a strike length of more than 1km (Figure 1). Exploration will also include evaluation of material from waste dumps, tailings and mine spill.

Lepidico Managing Director Joe Walsh said *“the Company is very much looking forward to working with Grupo Mota – one of Europe’s most highly respected and long-established ceramic industry suppliers. With successful exploration at Alvarrões, we hope to identify significant additional feed material for our future L-Max<sup>®</sup> facilities and Grupo Mota’s ceramics business.”*

Grupo Mota Chief Executive Officer, Carlos Mota said *“we believe this is the first step to a long-term partnership with Lepidico. We are confident that the exploration and drilling activities in Alvarrões will result in the identification of lithium minerals to feed the future L-Max<sup>®</sup> facilities. Grupo Mota awaits with high expectation working with Lepidico.”*

#### Alvarrões

Grupo Mota currently operates numerous mines and quarries in Portugal including the Alvarrões Lepidolite Mine, from which it produces approximately 20,000 tonnes per annum of lithium minerals, predominantly lepidolite. This material is then concentrated using optical sorting to a product grading approximately 2.5% Li<sub>2</sub>O, which is mainly for use in the ceramics industry.

The Alvarrões lithium mine sits in the Seixo Amarelo-Gonçalo (“SAG”) rare element pegmatite district covering an area of 100 km<sup>2</sup> of the Central Iberian Zone in north-eastern Portugal (Figure 2). Although it is an area of long established open pit extraction of hard-rock lithium concentrates, the potential for a large scale mining operation geared towards the production of lithium chemicals for the battery market has to date not been evaluated.

The dense concentration and strike continuity of the pegmatites of the SAG system provide excellent potential for the delineation of significant deposits of lepidolite mineralisation at Alvarrões.



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Around 95% of the known SAG pegmatite veins are sub-horizontal sills, with a sub-horizontal plunge, and range up to 3.5 m in thickness. These sills exhibit an aplite-pegmatitic texture (ie, a mix of fine- and coarse-grained pegmatites) (Figures 4 and 5) composed of quartz, feldspar, muscovite and varying amounts of minerals of Li, Be, Nb, Ta, and Sn.



Figure 1. Alvarrões lepidolite mine, Guarda area, Portugal.

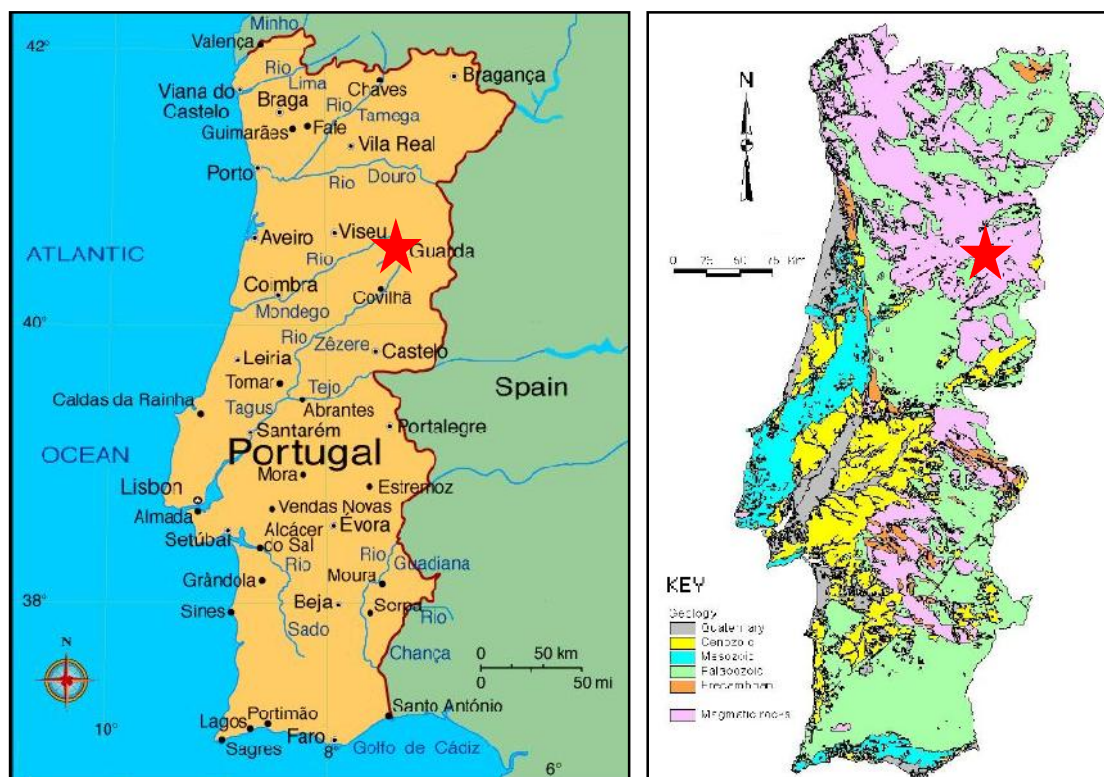
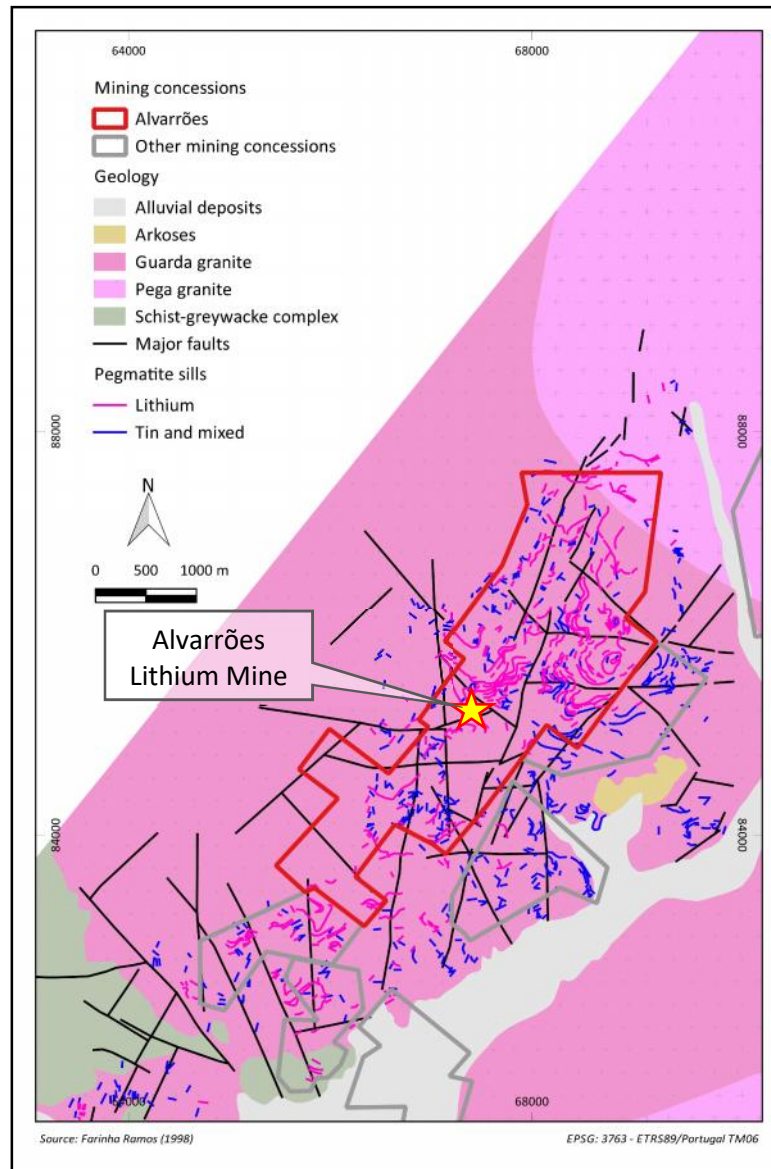


Figure 2. Alvarrões is located near the city of Guarda (left) in northeastern Portugal in an area of peraluminous S-type granites and Palaeozoic greywacke of the Central Iberian Zone (right).

The Alvarrões mining concession (MNC 000008) is approximately 634 ha in size and encompasses most of the known outcropping lithium pegmatites in the area (Figure 3). The pegmatites outcrop along the NE slopes of the Serra da Estrela mountains, between 450 m and 850 m elevation.

Three types of sills are distinguished in the SAG area (Figure 3): Lithian Sills, which occur at higher structural levels; Stanniferous Sills, which generally occur in lower structural levels than the lithian sills; and Mixed Sills, intermediate to these.

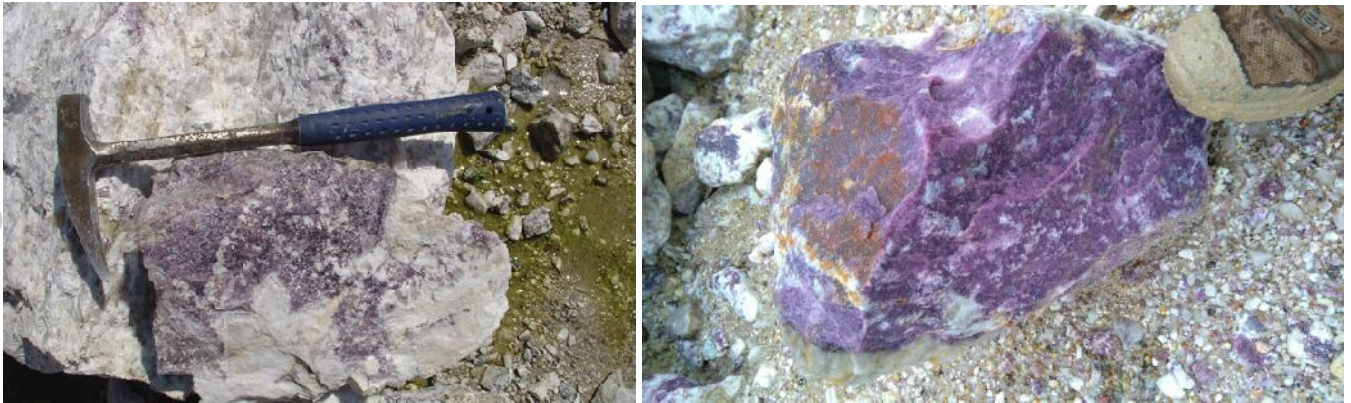


**Figure 3.** The Alvarrões mining concession (MNC000008; in red) extends for approximately 5 km and encompasses most of the lithium-bearing pegmatites (pink) in the area.

Lithian sills, or the lithium pegmatites, are usually complex, banded and zoned and exhibit a typical pink-violet colour (Figures 4 and 5). They are enriched in  $Al_2O_3$ ,  $MnO$ ,  $P_2O_5$ , Li, Rb, Nb, Ta. In addition to quartz and feldspar they contain Li-bearing minerals of the muscovite-lepidolite series and the amblygonite-montebrazite series, as well as topaz, cassiterite, manganocolumbite, zircon, monazite, Mn-oxides, etc.

Lepidolite Occurs in both the pegmatitic and aplitic facies. In the coarse form, lepidolite crystals can reach 2 cm in diameter, and in the finer-grained aplitic facies the lepidolite occurs in dense aggregates, in paragenesis with albite, quartz and topaz. The intrusion of the pegmatite sills induced a metasomatic process in the host granite,

leading to the enrichment of sill contacts in lithium through the substitution of black biotite by a light brown zinnwaldite, the iron-bearing form of lepidolite (Figure 5).



**Figure 4.** Lepidolite-bearing pegmatite displaying different textural types, Alvarrões mine, Portugal.



**Figure 5.** Lepidolite-bearing pegmatite with striking colloform texture (left) and zinnwaldite selvedge in host rock (right), near Alvarrões mine, Portugal.

### Summary of Terms between Lepidico and Grupo Mota

- Lepidico will pay Grupo Mota €10,000 within 5 days of execution of the Term Sheet.
- Lepidico will undertake Development Expenditure of at least €250,000 in success-based stages over an 18-month exclusive period on the Alvarrões Project with the goal of defining a Mineral Resource (compliant with the JORC Code, or similar) of more than 1 million tonnes grading 1.5% Li<sub>2</sub>O. Activities will commence once funding is secured.
- All data will remain the property of Grupo Mota if Lepidico does not proceed with development.
- Lepidico will have an exclusive / pre-emptive right for 3 years to effect a commercial relationship with Grupo Mota with regards to ore supply from Alvarrões including sale of ore or concentrate by Grupo Mota to Lepidico, and / or the right for Lepidico to develop and operate a lithium mica mining and concentration project at Alvarrões.
- Under the latter circumstance, if requested, Lepidico will make available an agreed tonnage of lepidolite feed to Grupo Mota to allow continuation of the established Mota Ceramic Solutions operations using lepidolite.
- Term Sheet is conditional on Lepidico due diligence on mining tenure.



**Figure 6.** Alvarroes mine process tailings dump (left) showing lepidolite-bearing talings sands (mauve coloration).

### Third Element Metals

Third Element Metals Pty Ltd (“TEM”) was established in 2016 as a 50:50 joint venture through which Lepidico (ASX : LPD) and Crusader Resources (ASX : CAS) would investigate opportunities in Brazil, and later in Portugal, to leverage Lepidico’s proprietary L-Max® process technology. As part of those activities, TEM lodged an application for an exploration licence (“Gaia”) in the Guarda area contiguous with the Alvarroes property.

The joint venture partners have agreed a restructure of the TEM joint venture that will see Lepidico focusing on the existing mines in the area with a view to lithium mica concentrate supply for export to L-Max® plant(s), including with Grupo Mota over the Alvarroes property. Meanwhile Crusader (through TEM) will concentrate on exploration at Gaia (and in Brazil) with a longer term objective of being able to justify the construction of L-Max® plants in Brazil and Portugal.

Lepidico will transfer its interest in TEM to Crusader, which will become the sole shareholder of TEM. TEM will maintain the Gaia application and associated rights on grant, but should Crusader elect to divest, TEM will transfer the application and associated rights to Lepidico.

Crusader/TEM will have rights to one L-Max® licence in each of Portugal and Brazil. Should TEM develop an L-Max® plant in Portugal, Lepidico will supply any concentrate from Alvarroes on reasonable commercial terms.

If Crusader/TEM develops lithium mica assets in Brazil and produces concentrate for export, Lepidico will have the option to secure an offtake agreement on reasonable commercial terms.

This simplified structure will allow both Lepidico and Crusader to leverage their respective strengths and strategic objectives.

### Further Information

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The information in this report that relates to Exploration Results is based on information compiled by Mr Tom Dukovcic, who is an employee of the Company and a member of the Australian Institute of Geoscientists and who has sufficient experience relevant to the styles of mineralisation and the types of deposit under consideration, and to the activity that has been undertaken, 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 Dukovcic consents to the inclusion in this report of information compiled by him in the form and context in which it appears.

### **About Lepidico Ltd**

Lepidico Ltd is an ASX-listed Company focused on exploration, development and production of lithium. Lepidico owns the technology to a metallurgical process that has successfully produced lithium carbonate from non-conventional sources, specifically lithium-rich mica minerals including lepidolite and zinnwaldite. The L-Max® Process has the potential to disrupt the lithium market by providing additional lithium supply from alternative sources. The Company is currently conducting a pre-feasibility study for a Phase 1 L-Max® plant, targeting production for 2019. Four potential sources of feed to the planned Phase 1 Plant are being evaluated, one of which is the Separation Rapids deposit in partnership with its owner Avalon Advanced Materials Inc. Lepidico's current exploration assets include options over the Lemare and the Royal projects, both in Quebec, Canada; ownership of the Euriowie project near Broken Hill in New South Wales and ongoing discussions with Latin Resources (ASX:LRS) aimed at leveraging L-Max® in Peru and Argentina to jointly evaluate lithium opportunities.

### **About Grupo Mota**

MOTA® CERAMIC SOLUTIONS offers raw materials, prepared bodies, and professional services to the world's ceramic industries. Generations of experience and the capacity to constantly innovate is the foundation of Mota's success. The Company's prime objective is to use wisely its human, mineral and industrial resources combined with the design and production of state-of-the-art ceramic solutions to answer the needs of a dynamic market.

MOTA® CERAMIC SOLUTIONS is the largest Portuguese supplier of speciality clays. Established in the early 1950s, its companies have contributed to the development, growth and sustainability of the Portuguese ceramic industry. Currently, MOTA® CERAMIC SOLUTIONS exports to 25 countries and over the last 3 years has increased export revenues to approximately 25 % of total sales.

### **References:**

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