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# LATIN SIGNS BINDING TERMS SHEET WITH LITHIUM COMPANY LEPIDICO LTD

# **HIGHLIGHTS**

- Latin Resources Limited (ASX: LRS) has signed a binding term sheet to form a joint-venture between LRS and Lepidico Limited (LEP) which will seek to acquire and advance lithium projects in Argentina and Peru.
- LRS and LEP will create two Australian incorporated JV companies, one focused on Argentina and the other focused on Peru.
- The JV Companies propose to utilise the proprietary Lepidico L-Max technology to extract lithium from Mica ores.
- The Strategic JV will be exclusive to LRS for Argentina and Peru and all hard rock lithium projects identified in these jurisdictions will be managed within the Strategic JV.
- LRS has identified and is currently in the process securing hard rock pegmatite concessions in the Pampean Pegmatite province of NW Argentina.
- LRS has also identified a number of potential lithium brines projects in the "Salar del Hombre Muerto" District in the North West of Catamarca province (also Argentina).
- Strategic decision to pursue Lithium opportunities in line with LRS' long term strategy of mineral exploration in South America.

Latin Resources Limited (ASX: LRS) ("Latin" or "the Company") is pleased to announce that it has entered into a binding term sheet that details key commercial terms agreed upon by LRS and Lepidico Limited (LEP) to create a joint-venture which will seek to acquire and advance lithium projects in Argentina and Peru.

Lepidico owns the L-Max technology developed by Strategic Metallurgy Pty Ltd, a metallurgical process that has the potential to commercially extract lithium and other by-products from non-conventional sources, specifically mica minerals such as lepidolite and zinnwaldite, and provide lithium chemicals for the burgeoning electric battery market. Lepidico has already granted its first licence of the technology to Lithium Australia NL (ASX: LIT).

Lepidico's largest shareholders are Strategic Metallurgy Pty Ltd, a company controlled by Lepidico Chairman Gary Johnson

LRS and LEP will create two Australian incorporated companies - one focused on Argentina and the other focused on Peru (together, Strategic JV). The Strategic JV will be established to acquire and advance lithium projects in Argentina and Peru, with the aim to extract lithium using Lepidico's proprietary lithium extraction technology "L-Max" for Mica ores that are amenable to the process.

#### The key terms and conditions for the Strategic JV are as follows;

- LRS and LEP will create two Australian companies with subsidiary companies in Argentina and Peru (Strategic JV).
- Strategic JV will be exclusive to LRS for Argentina and Peru and all hard rock lithium projects identified in these jurisdictions will be managed within the Strategic JV.
- LEP will grant the JV Companies an exclusive right to market and acquire L-Max® licences ("L-Max® Rights") in each respective country for a period of 12 months.
- At the end of the 12 month period, the JV Companies individually will retain the rights to L-Max<sup>®</sup> technology if they acquire, or have rights to acquire, a lithium project and Latin secures \$1,000,000 in funding for each of the JV Companies.
- The Strategic JV will have as its objective to extract lithium from various mica ores using the proprietary lithium extraction L –Max technology

The binding Term Sheet is conditional upon drafting of detailed joint venture agreements for each of the JV Companies within 28 days. Upon execution of these agreements, Latin Resources will issue Lepidico 10,000,000 shares and a subsequent tranche of another 10,000,000 shares will be issued 12 months later. Each tranche of shares will be subject to a 12 month escrow period. The JV Companies will also pay Lepidico a gross product royalty of 1% on any revenue received from the sale of lithium and other by-products produced using L-Max®. Lepidico also has the right to nominate one Director to the board of LRS on the signing of the JV agreement.

PROPOSED TIMETABLE		
Phase	Terms	
Year 1	The JV Companies hold the exclusive right to market and acquire L-Max® licences.	
	• The JV Companies must acquire, or have rights to acquire, a hard rock lithium project in their respective country.	
	• Latin Resources must secure \$1,000,000 in funding for each of the JV Companies.	
Years 2 - 6	• The JV Companies must spend at least \$1,000,000 and complete a bankable/definitive feasibility study for a project.	
Year 7 onwards	• L-Max® rights for the JV Companies remain valid as long as lithium is being produced using the L-Max® technology.	

PROPOSED EXPENDITURE MILESTONES		
<b>Expenditure Level</b>	Lepidico Interest	
\$1,000,000	• Latin Resources initial interest will be 60%.	
	<ul> <li>Latin Resources must secure \$1,000,000 of funding in the 1<sup>st</sup> year.</li> </ul>	
\$1,000,001 to \$2000,000	<ul> <li>Lepidico can elect to contribute its pro rata interest for the next \$1,000,000 of expenditure.</li> <li>If Lepidico elects not to contribute, it will be diluted to 35% and Latin Resources will hold 65%.</li> </ul>	
\$2,000,001 or more	<ul> <li>Lepidico can elect to contribute its pro rata interest for all expenditure over \$2,000,000.</li> <li>If Lepidico elects not to contribute, it will be diluted to 30% and Latin resources will hold 70% of the Joint Venture.</li> </ul>	

## The L-Max technology

The L-Max process is a disruptive technology that delivers an opportunity to create a third supply source of lithium, namely lithium bearing micas such as lepidolite and zinnwaldite. Historically, these micas have not been considered as possible ores for lithium extraction as no economic process existed for viable economic extraction.

Lepidico has been successful in running the L-Max process in a mini plant that ran continuously for 10 days. This mini plant run was highly successful, producing high purity 99.57% lithium carbonate at a recovery level of 94%.

In generalised simple terms, the L-Max process involves the following basic steps:

- 1. Crushing and grinding the ore (or if it is already a tailings dam, washing it).
- 2. Floatation concentration of a Lithium mica (Lepidolite) concentrate.
- 3. Leaching of the Lithium mica (Lepidolite) concentrate by hot concentrated sulphuric acid (conditions not specifically stated) to produce a liquid enriched in lithium.

The progressive addition of various chemicals (e.g. lime) to progressively precipitate and progressively filter this solution to arrive at a saleable lithium carbonate or lithium hydroxide.

The flowsheet for L-Max is relatively straight forward and as such, Lepidico believes that it has the potential to be applied on a commercial scale to produce lithium chemicals and other by products at a competitive cost.

The L-Max technology potentially represents a breakthrough in the commercial treatment of lithium rich micas which could be a "game changer", for the lithium industry.

The Strategic JV between LRS and LEP grants an exclusive licensee of the L- Max technology for use in Argentina and Peru, this may have a commercial advantage over any competitors in that country.

Latin's managing director Chris Gale said: "We are extremely excited entering into this joint venture with Lepidico. The L-Max technology will potentially allow Latin a huge competitive advantage in Argentina in extracting lithium from ground containing mica ores.

This is another step forward in our strategy of evaluating new project opportunities throughout Latin America, in particular those with more favorable mineral characteristics.

The move into the lithium sector will add value to our Latin American business and we are confident this alliance with Lepidico will add significant value to the Company going forward."

He went on to say: "we are also expediting our exploration in Argentina by identifying and securing quality lithium bearing ores now that we have exclusive access to the L-Max technology"

#### **Exploration for Lithium in Argentina and Peru**

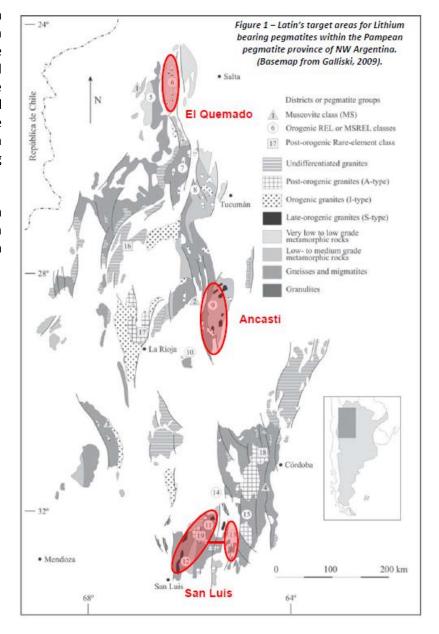
In preparation for the Strategic JV with Lepidico in Argentina and Peru and In line with the LRS strategy of evaluating new project opportunities throughout Latin America, in particular those with more favourable mineral characteristics, Latin Resources Limited has identified potential for hard rock Lithium resources in the Pampean Pegmatite Province of NW Argentina (Figure 1), and in Precambrian Gneiss terrains in Peru (Figure 4).

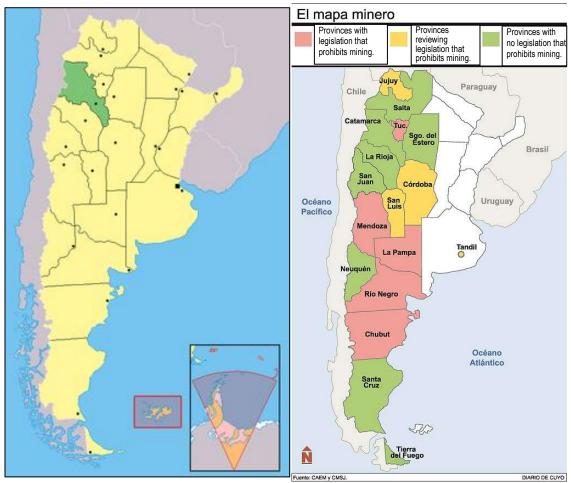
In line with the capabilities of the L-Max technology, the primary target mineral is Lepidolite (Li-Mica) which is known to occur in some of the documented pegmatites in the Pampean Pegmatite Province. Spodumene, also known to be abundant in the pegmatites, will also be targeted. (Figure 3).

#### Lithium Bearing Pegmatites in Argentina

Of the three main areas with documented evidence of Lithium bearing pegmatites (located in the provinces of Salta, Catamarca and San Luis), the pegmatites of the Ancasti ranges have been selected for initial focus given the documentary evidence of Lithium bearing pegmatites and the mining friendly jurisdiction.

Mining is governed in Argentina by a national mining code, but with specific variations and limitations on a province by province basis.





Sourced and translated from the Cuyo Newspaper online: http://www.diariodecuyo.com.ar/

Figure 2 – Location of the Catamarca Province (left) and a classification of mining friendly legislation by Province in Argentina in 2008 (right). Catamarca (Ancasti Pegmatites) and Salta (El Quemado Pegmatites) remain two of the most mining friendly jurisdictions in Argentina.

While the Salta province is mining friendly, there are fewer known occurrences of lithium bearing pegmatites. Conversely in San Luis, where there are a good number of documented Lithium bearing pegmatites. San Luis may be a logical secondary focus in future if a processing alternative is achievable in Catamarca, and mining and concentration are then feasible in San Luis, with concentrates then shipped some 400km to Catamarca.

Thus, Latin has focused on the Ancasti Ranges in the Catamarca Province because of more favourable provincial mining law and abundant Lithium bearing pegmatites.

A number of documented Lithium bearing pegmatites have been located in the Ancasti ranges. Mostly, these are isolated pegmatite bodies around 100m x 5m approximate outcrop size. In addition, a 50km x 4km trend hosting pegmatite swarms has been delineated from aerial photography, which hosts at least one known Lithium bearing pegmatite occurrence.

The ideal target for significant resource potential is within the swarm trend where numerous pegmatite bodies outcrop in close proximity to each other, making for a larger tonnage open pit target. Latin personal are currently on the ground in the Catamarca province and have commenced field work to identify and secure lithium bearing pegmatites. A detailed mapping and sampling program will be carried out over the coming weeks.





Spodumene

Lepidolite

Figure 3 – Common Lithium Minerals

#### Lithium Brine Deposits (Salares/Salt Lakes))

Maintaining the focus on Catamarca Province has sound logic for Lithium Brines also. The "Salar del Hombre Muerto", located at 4,000 metres above sea level in the North West of Catamarca province, is host one of Argentina's most significant Lithium producers, the Fenix Project.

Owned by FMC Corp. (NYSE:FMC, Market Cap US\$5Bn), the Fenix project commenced production of Lithium salts (Carbonate and Chloride) in 1997 following an investment of some US\$137 Million (including US\$14 Million in exploration and development studies).

Production and reserve data on the project are not published by FMC, but FMC reported revenues from the operation in 2015 were US\$238M with US\$23 in earnings, with a significant growth outlook. Argentine government sources state reserves of 850,000 tonnes of Lithium within 70 m of surface, with an average grade of 600ppm Lithium in the brines.

Lithium rich brines are pumped from underground sources at the Salar Lake and processed on site by a selective absorption process to extract Lithium salts in brines which are evaporated on site. The salts are then processed in two plants, one on site, the second near the city of Salta in the neighbouring Salta province.

All the Lithium products are exported by rail to the Antofagasta port in Chile, and by sea to USA.

Latin Resources will also investigate the "Salar del Hombre Muerto" district for any lithium brine opportunities to meet their strategic objective of evaluating new project opportunities throughout Latin America, in particular those with more favourable mineral characteristics in the current market and global demand cycle.

#### Precambrian Gneiss Belts hosting pegmatites in Peru

Three belts of Precambrian rocks are differentiated by one million scale geological mapping of Peru, and in a number of regions are reportedly host to pegmatite deposits. These are often overlooked by explorers focused on precious and base metals that are heavily endowed in the Peruvian Andes, and as a result have been the focus of limited study.

Numerous reports of INGEMMET, Peru's geological survey, describe pegmatites with common associate minerals of Li-bearing pegmatites: Micas, Feldspars, Tourmaline and Beryl.

One project identified in the Southern Coastal Belt near Quilca hosts significant Micaceous pegmatite bodies, some carrying beryl, and has been selected for investigation.

#### Quilca Pegmatite Field

The Quilca pegmatite field has been mined at a small scale intermittently throughout the 20<sup>th</sup> century up to the present. The field is around 50km<sup>2</sup> on the southern flank of the Quilca River the mouth of which is 45 km north of the Matarani Port in the Arequipa Department.

Nearly 60 individual pegmatites have been identified and are dominated by Feldspar and

Ecuador

Colombia

Ecuador

Brazil

ANCASI

ANCASI

ANCASI

ANCASI

PRECO

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Figure 4 – Precambrian Gneiss Belts in Peru

Muscovite, and Camminati (1942) reports associated tourmaline and beryl which are minerals that are commonly found in Lithium bearing pegmatites.

#### **Generative Program**

Latin is preparing a generative exploration program to follow up numerous documented occurrences of pegmatites along the southern Peruvian coast within the Precambrian Gneiss that is found within the Coastal Batholith. Other pegmatite occurrences are also being researched, and of particular interest are very old geological formations of the Upper Proterozoic-Lower Paleozoic (500-1000 Ma) on the eastern flanks of the Andes that may be analogous to the Argentine Pampean Pegmatite Province.

#### References

**Galliski, M.A. 2009**. *The Pampean Pegmatite Province, Argentina: A Review*. Universidade Federal de Pernambuco, Centro de Tecnologia e Geociências, Departamento de Geologia, Estudos Geológicos v. 19 (2).

**Camminati Cortés, Luis, 1942,** Informe sobre el reconocimiento practicado a la zona micácea de los departamentos del sur del Perú. Boletín del Cuerpo de Ingenieros de Minas pp 98-118.

#### **Update - Other Latin Resources Projects**

#### Ilo Copper Projects – Ilo Este (Peru)

- Assay results received from Zahena's first hole completed at Ilo Este (IE-DDH-010-15):
- 0-366m @ 0.11% Cu (max 0.37%), 0.11g/t Au (max 1.2g/t)
- 8 holes now completed; logging suggests better grades unlikely.
- Assay results expected Q2 2016

#### Ilo Copper Projects – Southern Concession Block (Peru)

• FQM subsidiary Minera Antares is preparing to undertake 3 x 4km Induced Polarization survey lines at the Pachamanca/MT-03 Porphyry Copper target to test for mineralisation under totally covered terrain host to magnetic anomaly.

# *Ilo Copper Projects – Ilo Norte (Peru)*

- Data and core was reviewed by potential JV partners during the quarter.
- Discussions with potential joint venture partners ongoing.

#### Guadalupito (Peru)

• Discussions continue with potential investors for Guadalupito.

### **FOR FURTHER INFORMATION PLEASE CONTACT:**

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#### **ABOUT LATIN RESOURCES LTD**

Latin Resources Limited is a mineral exploration company focused on creating shareholder wealth through the identification and definition of mineral resources in Latin America. The company has a portfolio of projects in Peru and is actively progressing its Iron Oxide-Copper-Gold and Copper Porphyry projects in the Ilo region. The Company is also identifying and securing Lithium projects in Argentina and Peru

# **ABOUT LEPIDICO LTD**

Lepidico is a public unlisted lithium company with interests in lithium exploration assets and processing technology. It's current exploration assets include an option over the Lemare project in Canada; ownership of the Euriowie project near Broken Hill in New South Wales; and a joint venture agreement with ASX-listed Crusader Resources (ASX:CAS) to jointly exploit lithium opportunities in Brazil, including Crusader's Manga prospect. Lepidico also owns the L-Max® technology, a metallurgical process that extracts lithium from non-conventional sources, specifically Li-rich mica minerals such as lepidolite and zinnwaldite. Lepidico's largest shareholders are Strategic Metallurgy Pty Ltd and Potash West Ltd (ASX:PWN).

#### **COMPETENT PERSONS STATEMENT**

The information in this report that relates to geological data and exploration results is based on information compiled by Mr Andrew Bristow, a Competent Person who is a Member of the Australian Institute of Geoscientist and a full time employee of Latin Resources Limited's Peruvian subsidiary. Mr Bristow has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Bristow consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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