



# Houston Lake Mining Inc.

## NEWS

### HLM Announces an Upgraded NI 43-101 Resource Estimate for the PAK Rare Metals Project in Ontario, Canada

Sudbury, Ontario –January 28, 2015 - Houston Lake Mining Inc. (TSX.V: HLM), is pleased to report a Canadian National Instrument (N.I.) 43-101 mineral resource estimate for the PAK Rare Metals Project, located in northwestern, Ontario. The resource estimation has been prepared by WSP Canada Inc. (TSX: WSP), a Montreal-based firm. WSP is one of the largest engineering firms in Canada and has a mining division maintaining independent consulting geologists and engineers.

#### Highlights:

- ✂ Indicated mineral resource of 2.45 million tonnes grading at 1.81% Li<sub>2</sub>O equivalent(eq.), including 1.78 million tonnes grading 2.40% Li<sub>2</sub>O eq. in technical grade lithium zones with a low inherent iron spodumene;
- ✂ Inferred mineral resource of 5.91 million tonnes grading at 2.01% Li<sub>2</sub>O equivalent(eq.), including 5.57 million tonnes grading 2.11% Li<sub>2</sub>O eq. in technical grade lithium zones with a low inherent iron spodumene;
- ✂ An increase of 27% in total indicated and inferred Li<sub>2</sub>O eq. contained tonnes from the 2014 Maiden Inferred Resource Estimate;
- ✂ The Pakeagama Lake pegmatite has a 400m strike length with an estimated true width varying from 10 to 125m with a sub-vertical orientation of the pegmatite, and;
- ✂ Resource remains open to depth and along strike to the northwest and southeast.

“We are extremely pleased with the results of our upgraded resource estimate since there are definitely analogous features to the high grade, multi-element, and large tonnage of the prolific Tanco pegmatite in southeastern Manitoba<sup>(1)</sup>,” commented Trevor R. Walker, President of HLM. “With the deposit exposed at surface, this report also confirms that the Pakeagama Lake pegmatite’s lithium mineralization is wide, high grade, continuous and consistent, persisting at depth, and with tantalum and possibly rubidium and cesium byproducts.”

Table I: Indicated and Inferred Mineral Resource Estimate – PAK Rare Metals Project (Pakeagama Lake pegmatite deposit)<sup>(6)</sup>

Cut-off	Resource Category	Commodity	Geologic Zone	Tonnes (x 1,000)	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)	Cs <sub>2</sub> O (%)	Rb <sub>2</sub> O <sup>(5)</sup> (%)	Contained Li <sub>2</sub> O (t)	Contained Ta <sub>2</sub> O <sub>5</sub> (t)	Li <sub>2</sub> O Eq. (%) <sup>(2)</sup>
0.4 Li <sub>2</sub> O Eq.	INDICATED	Lithium	Upper Intermediate Zone (UIZ) <sup>(4)</sup>	375	3.63	58	0.03	0.14	13,363	22	n/a
		Lithium	Lower Intermediate Zone (LIZ)	1,405	1.82	92	0.03	0.31	25,603	129	n/a
		Lithium	<b>Total Lithium Zones</b>	<b>1,780.2</b>	<b>2.20</b>	<b>85</b>	<b>0.03</b>	<b>0.27</b>	<b>39,238</b>	<b>151</b>	<b>2.40</b>
		Tantalum/Rubidium	Central Intermediate Zone (CIZ)	668.2	n/a	113	0.08	0.63	n/a <sup>(3)</sup>	75	n/a
		Lithium/Tantalum/Rubidium	<b>Bulk Pegmatite Indicated Resource</b>	<b>2,448.4</b>	<b>1.60</b>	<b>92</b>	<b>0.05</b>	<b>0.37</b>	<b>39,238</b>	<b>226</b>	<b>1.81</b>
0.4 Li <sub>2</sub> O Eq.	INFERRED	Lithium	Upper Intermediate Zone (UIZ) <sup>(4)</sup>	426	3.23	66	0.04	0.17	13,767	26	n/a
		Lithium	Lower Intermediate Zone (LIZ)	5,145	1.75	111	0.03	0.30	90,220	573	n/a
		Lithium	<b>Total Lithium Zones</b>	<b>5,571</b>	<b>1.87</b>	<b>108</b>	<b>0.03</b>	<b>0.29</b>	<b>103,987</b>	<b>601</b>	<b>2.11</b>
		Tantalum/Rubidium	Central Intermediate Zone (CIZ)	338	n/a	117	0.08	0.60	n/a <sup>(3)</sup>	40	n/a
		Lithium/Tantalum/Rubidium	<b>Bulk Pegmatite Inferred Resource</b>	<b>5,909</b>	<b>1.76</b>	<b>108</b>	<b>0.04</b>	<b>0.31</b>	<b>103,987</b>	<b>640</b>	<b>2.01</b>



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- (1) The original size of the Tanco pegmatite was 57,427,342 tonnes with a maximum thickness of 100m (Stilling, A., Cerney, P., and Vanstone, P.; 2006, The Tanco Pegmatite at Bernic Lake, Manitoba, *The Canadian Mineralogist*; Vol. 44 pp. 599-623). The UIZ, CIZ and LIZ units at the Pakeagama Lake Pegmatite have striking similarities in mineralogy and chemical composition to those at the Tanco deposit. The bulk chemical composition for  $\text{Li}_2\text{O}$  and  $\text{Ta}_2\text{O}_5$  was 0.74% and 366ppm, respectively at Tanco. The Tanco Mine is located in southeastern Manitoba and was a lithium mineral concentrate producer from 1986 until operations were suspended in 2009. Tanco was also a tantalum mineral concentrate producer until March 2013 when operation of this circuit ceased.
- (2)  $\text{Li}_2\text{O}$  equivalent was determined based on lithium and tantalum grades, prices (\$330.56 per tonne of 6% spodumene concentrate and \$198.51 per kg of 30% tantalite concentrate) and their respective recovery ratio (50% recovery for tantalum and at 78.5% recovery for lithium from bulk pegmatite). No credit was included for rubidium, cesium or any of the other elements contained for the purpose of this report.
- (3)  $\text{Li}_2\text{O}$  content in the CIZ is predominantly associated with lithian micas and without metallurgical testing not deemed recoverable, therefore, not included in the  $\text{Li}_2\text{O}$  contained and subsequently the  $\text{Li}_2\text{O}$  equivalent calculation for the purpose of this report.
- (4) The UIZ and LIZ are technical/ceramic-grade lithium zones (high-grade lithium with low inherent iron (<0.1%  $\text{Fe}_2\text{O}_3$  from whole rock analysis). The iron content of spodumene contained within the LIZ increases as the contact with iron-rich metasedimentary country rocks are approached, but it has been noted that a concentration below 0.1% wt.%  $\text{Fe}_2\text{O}_3$  is maintained to within about 10 meters of the pegmatite-metasediment contact.
- (5) Without further metallurgical testing it is unknown if the  $\text{Rb}_2\text{O}$  is recoverable from the Lithium zones (UIZ, LIZ). For the purpose of this report,  $\text{Rb}_2\text{O}$  credit has not been considered in any of the zones.
- (6A) Calculation is based on 2,444m of drilling in 14 holes to an average depth of 190m in the deposit, and 21 channels covering 149m at surface.
- (6B) Mineral Resources are not Mineral Reserves having no demonstrated economic viability. Results are presented undiluted and in situ.
- (6C) Indicated and Inferred Resources were evaluated from drill hole and channel sample results using a block model approach (inverse distance squared interpolation) with 5 blocks within Geovia/Suprac software.
- (6D) Calculations used metric units (meters, tonnes and ppm). Results were rounded to reflect their estimated nature. Tonnes are rounded to 100,000 except  $\text{Ta}_2\text{O}_5$  contained that are rounded to the nearest tonne. Grades reported in percent were rounded to two decimals while grades reported in part per million (ppm) were rounded to the closest integer.

### Due Diligence

The Mineral Resources for PAK Rare Metals Project disclosed in this news release have been estimated by Mr. Todd McCracken, P.Geo., an employee of WSP and independent of HLM. By virtue of his education and relevant experience, Mr. McCracken is "Qualified Person" for the purpose of National Instrument 43-101. The Mineral Resource has been classified in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves, (November 2010). Mr. McCracken, P.Geo., has read and approved the contents of this press release as it pertains to the disclosed Mineral Resource estimate.

Mr. Peter J. Vanstone, P.Geo., is an independent "Qualified Person" to HLM defined under NI 43-101 and has reviewed and approved the technical information contained in this news release.

### About the PAK Rare Metals Project

The PAK Rare Metals Project lies close to the boundary between two geological sub-provinces of the western Superior geologic province in northwestern Ontario and hosts a rare metals pegmatite deposit. The deposit is an LCT (lithium- cesium- tantalum) classified pegmatite. These rare types of deposits have been the principal source of hard rock lithium, tantalum, rubidium and cesium ores mined in the world.

HLM is actively exploring its 100% owned and optioned project which contains the Pakeagama Lake pegmatite. The deposit is one of the highest grade deposits in North America which has a current Indicated Resource of 2.45 million tonnes of 1.81%  $\text{Li}_2\text{O}$  Eq. and Inferred Resource of 5.91 million tonnes of 2.01%  $\text{Li}_2\text{O}$  Eq. which has a technical/ceramic grade spodumene with low inherent iron (below 0.1%  $\text{Fe}_2\text{O}_3$ ). The deposit has a 400m strike length with an estimated true width varying from 10m to 125m with a sub-vertical orientation. The resource remains open to depth and along strike to the northwest and southeast.

### About Houston Lake Mining Inc.

HLM's goal is to become a fully integrated lithium and tantalum producer through the development of the PAK Rare Metals Project in Ontario, Canada. The Company's strategy is to take advantage of the global shift towards electric/hybrid vehicles and high quality consumer electronics by becoming a raw material supplier of the elements required for the pursuit of sustainable energy and other applications in high-tech electronics and metal alloys. Combined, HLM's Board of Directors and Management have over 300 years of finance, exploration and mining experience to help to facilitate the Company's goal.



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HLM has a total of 93,788,003 common shares issued and outstanding, excluding the proposed shares to be issued as a result of this press release. For additional information on HLM, please visit [www.houstonlakemining.com](http://www.houstonlakemining.com).

### Company Contact Information

Trevor R. Walker, **President**  
2736 Belisle Drive  
Val Caron, ON.  
P3N 1B3 CANADA

Henry Kloepper, **CEO**  
T. +001 416.520.0187

T. +001 705.897.7622

F. +001 705.897.7618

### Forward-looking Statements

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. This release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts, that address future production, reserve potential, exploration drilling, exploitation activities and events or developments that the Company expects are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward looking statements include market prices, exploitation and exploration successes, continued availability of capital and financing, and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and those actual results or developments may differ materially from those projected in the forward-looking statements. For more information on the Company, investors should review the Company's registered filings what are available at <http://www.sedar.com>