Standard Lithium Announces Maiden Inferred Resource Of 802,000 Tonnes LCE At South-Western Arkansas Tetra Project

written by Raj Shah | January 28, 2019

January 28, 2019 (Source) – **Standard Lithium Ltd.** ("Standard Lithium" or the "Company") (TSXV: SLL) (OTCQX: STLHF) (FRA: S5L), is pleased to report a maiden lithium resource statement for its approximately 30,000 acre Project (aka TETRA Project) in the south-western region of Arkansas, USA (the "Property"; see Company news release dated 8th Jan 2018). The maiden resource report, detailed in Table 1 below, includes 802,000 metric tonnes of lithium carbonate equivalent (LCE) at the Inferred Resource category (see notes [1], [4] and [5] below). Combined with Standard Lithium's other project in Southern Arkansas (Lanxess Property; see news dated 14th November 2018), this results in a total combined Arkansas lithium brine resource of 3,888,000 tonnes LCE.

Robert Mintak, CEO said "*This combined project in Southern Arkansas positions us as the largest lithium brine resource in the US; a significantly expanding market that currently relies on imports of foreign lithium.*" Dr. Andy Robinson, President and COO of Standard Lithium continued "*Our collaboration with TETRA Technologies was fundamental in allowing Standard Lithium to gain a meaningful foothold in the south-west Arkansas Project area, and this maiden resource estimate is validation of the*

high resource potential we identified in this highly prospective region. We look forward to tighter definition of this resource and developing its potential in parallel with the Lanxess property."

Table 1 – South-Western Arkansas Lithium Brine Project Inferred Resource Statement

	Upper Smackover Formation		Middle Smackover Formation		**Total (and main resource)**
Parameter	South Resource Area	North Resource Area	South Resource Area	North Resource Area	
Aquifer Volume (km^3)	2.49	3.65	0.60	0.93	7.66
Brine Volume (km^3)	0.25	0.36	0.06	0.09	0.76
Average lithium concentration (mg/L)	399	160	399	160	199
Average Porosity	10.1%	10.1%	10.3%	10.3%	10.1%
Total Li resource (as metal) metric tonnes (see notes [4] & [5] below)	78,000	44,000	18,000	11,000	151,000

Total LCE resource (metric tonnes) (see notes [4] & [5] below)	413,000	233,000	98,000	59,000	**802,000**

Notes:	
[1]	Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve.
[2]	Numbers may not add up due to rounding.
[3]	The resource estimate was completed and reported using a cut-off of 50 mg/L lithium.
[4]	The resource estimate was developed and classified in accordance with guidelines established by the Canadian Institute of Mining and Metallurgy. The associated Technical Report was completed in accordance with the Canadian Securities Administration's National Instrument 43-101 and all associated documents and amendments. As per these guidelines, the resource was estimated in terms of metallic (or elemental) lithium.
[5]	In order to describe the resource in terms of 'industry standard' lithium carbonate equivalent, a conversion factor of 5.323 was used to convert elemental lithium to LCE.

The TETRA Project lithium brine Inferred Resource, as reported, is contained within the Upper and Middle facies of the Smackover Formation, a Late Jurassic oolitic limestone aquifer system that underlies the entire Property. This brine resource is in an area where there is localised oil and gas production, and where brine is produced as a waste by-product of hydrocarbon

extraction. The data used to estimate and model the resource were gathered from active and abandoned oil and gas production wells on or adjacent to the Property.

The resource underlies a total of 807 separate brine leases and eight brine mineral deeds which form a patchwork across Columbia and Lafayette Counties in south-western Arkansas. The Property consists of 11,033 net hectares (27,262 net acres) leased by TETRA, and the resource estimate was only modelled for that footprint.

The resource area is split into the northern and southern resource zones, where a fault system is interpreted to act as a divide between the two areas (although there is hydrogeological continuity in the resource zone across the fault system). In general, the Upper and Middle Smackover formations are slightly thinner, with lower lithium grades in the northern zone, and slightly thicker with higher lithium grades in the southern zone. The depth, shape, thickness and lateral extent of the Smackover Formation were mapped out in a 3D model using the following data:

- 2,444 wells drilled into the subsurface in the general TETRA Property area. Of these, 2,041 wells were deep enough (2,135 m, or 7,000 feet) to penetrate the Upper Smackover Formation;
- 104 wells had electric logs available within the TETRA Property that included the top of the Upper Smackover Formation;
- 32 wells had electric logs available within the TETRA Property that included the base of the Upper Smackover Formation; and,
- 19 wells had electric logs available within the TETRA Property that included the base of the Middle Smackover Formation.

In addition, hardcopy prints of 20 proprietary regional seismic lines totaling over 200 line-km (over 125 line-miles) were procured, scanned, rasterized and loaded into Kingdom® seismic and geological interpretation software.

The porosity and permeability data used to characterize the Smackover Formation hydrological model included:

- Historical effective porosity measurements of more than 1,935 Smackover Formation core samples that yielded an average effective porosity of 14.3%;
- Historical permeability data that vary from <0.01 to >5,000 millidarcies (mD) with an average of 338 mD;
- 515 core plug samples from oil and gas wells within the Upper and Middle Smackover Formations at the TETRA Property were analysed for permeability and porosity and yielded an overall average permeability of 53.3 mD and a total porosity of 10.2%; and,
- 3,194 Smackover Formation total porosity values based on LAS density/porosity logs from 29 wells within, and/or adjacent to, the TETRA Property that have an average total porosity of 9.2%.

With respect to the resource estimation, a statistical review of the capped and declustered effective porosity measurements collected within the Upper and Middle Smackover formations resulted in average porosity values of 10.1% and 10.3% for the Upper and Middle Smackover formations, respectively.

Representative *in-situ* brine geochemistry was assessed using eight lithium brine samples taken from wells re-entered by Standard Lithium in 2018, and was supplemented by four historical samples. These data yielded an average lithium grade of 160 mg/L in the northern resource zone and 399 mg/L in the southern resource zone. Sample quality assurance and quality

control was maintained throughout by use of sample blanks, duplicates and standard ‘spikes’, and by using an accredited, independent laboratory, with a long history of analysing very high salinity lithium brines.

Resource Estimation Methodology

The resource estimate was completed by Independent qualified person (QP) Mr. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd., assisted by other Independent QP’s; Mr. Warren Black M.Sc. P. Geo. of APEX Geoscience Ltd. (resource modelling), Mr. Kevin Hill B.Sc. P. Geo. Hill Geophysical Consulting (geology), and Mr. Kaush Rakhit M.Sc. P. Geol. of Canadian Discovery Ltd (hydrogeology). The resource estimate of the lithium brine at the TETRA Property is classified as an “Inferred” Mineral Resource and was developed and classified in accordance with guidelines established by the Canadian Institute of Mining and Metallurgy. The associated Technical Report was completed in accordance with the Canadian Securities Administration’s National Instrument 43-101 and all associated documents and amendments.

Quality Assurance

The resource evaluation report was completed by the Independent Qualified Persons as described above, with Roy Eccles P. Geol. as the lead author. Raymond Spanjers, Registered Professional Geologist (SME No. 3041730), is a qualified person as defined by NI 43-101, and has supervised the preparation of the scientific and technical information that forms the basis for this news release. Mr. Spanjers is not independent of the Company as he is an officer in his role as Vice President, Exploration and Development.

Future Target for Exploration

A Future Target for Exploration (FTE) was also developed which considered the additional resource which may be present if the

lease areas were ‘filled-in’ and the total footprint of the Project were unitised as a brine-production unit in the future; this FTE considered that an additional 86,000 to 160,000 tonnes LCE may be present under the total Project footprint if unitisation were applied for and approved. The potential quantity and grade of the FTE is conceptual in nature. It is uncertain if Standard Lithium will acquire the leases being delineated as a future target of exploration and it is uncertain if a mineral resource estimate including the leases in question will ever be delineated.

About Standard Lithium Ltd.

Standard Lithium (TSX: SLL) is a specialty chemical company focused on unlocking the value of existing large-scale US based lithium-brine resources. The company believes new lithium production can be brought on stream rapidly by minimizing project risks at selection stage (resource, political, geographic, regulatory & permitting), and by leveraging advances in lithium extraction technologies and processes. The Company’s flagship project is located in southern Arkansas, where it is engaged in the testing and proving of the commercial viability of lithium extraction from over 150,000 acres of permitted brine operations utilizing the Company’s proprietary selective extraction technology. The Company is also pursuing the resource development of over 30,000 acres of separate brine leases located in southwestern Arkansas and approximately 45,000 acres of mineral leases located in the Mojave Desert in San Bernardino County, California.

Standard Lithium is listed on the TSX Venture Exchange under the trading symbol “SLL”; quoted on the OTC – Nasdaq Intl Designation under the symbol “STLHF”; and on the Frankfurt Stock Exchange under the symbol “S5L”. Please visit the Company’s website at www.standardlithium.com.

On behalf of the Board,

Standard Lithium Ltd.
Robert Mintak, CEO & Director

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