

May 19, 2020



Standard Lithium Completes Commissioning and Commences Full-time Operation of Its Lithium Extraction Demonstration Plant

EL DORADO, Ark., May 19, 2020 (GLOBE NEWSWIRE) -- **Standard Lithium Ltd.** ("Standard Lithium" or the "Company") (TSXV: SLL) (OTCQX: STLHF) (FRA: S5L) an innovative technology and lithium development company, is pleased to announce the successful start-up of the Company's industrial-scale Direct Lithium Extraction Demonstration Plant at Lanxess' South Plant facility in southern Arkansas (the "Site"). This first-of-its-kind plant, using Standard Lithium's proprietary LiSTR Direct Lithium Extraction technology, has been successfully commissioned during the first part of 2020 and is now operating on a 24/7 basis, extracting lithium directly from Lanxess' tail brine ([see news dated 02nd December 2019 for additional details](#)). Standard Lithium's project team in Arkansas is now commencing a series of systematic optimisation exercises in order to fine-tune the plant and investigate how performance can be improved further.

KEY FEATURES OF THIS DISRUPTIVE TECHNOLOGY

- Produces lithium chloride (LiCl) directly from un-concentrated raw brine;
- Reduces recovery time from months to less than a day;
- Eliminates the massive environmental footprint of evaporation ponds;
- Returns virtually all water to the source aquifer;
- Not affected by weather conditions;
- Vastly increases recovery efficiencies to as much as >90%; and,
- Unlocks large-scale unconventional brine resources.

The LiSTR demonstration plant is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m³/hr) from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate. The highly automated, three-story demonstration plant includes an integrated office and control room, as well as a full, process-specific analytical laboratory.

Dr Anno Borkowsky, responsible for the Lithium Project on the board of LANXESS AG said *"From our point of view, all steps have gone very well so far. With Standard Lithium and LANXESS, two strong partners with great experience in the world of chemical engineering have joined forces here. This makes me very confident that we will exploit all the possibilities of this project."*

Dr Andy Robinson, Standard Lithium President and COO, commented: *"this is an extremely exciting time for Standard Lithium and our project partner, LANXESS. Our team has been working tirelessly over the last few months to fully commission the plant, despite the*

challenges of working in a necessarily modified and restricted operating environment. COVID-19 related limitations have complicated some of the commissioning activities, but our team, led by Mr. Bruce Seitz has done a fantastic job to safely and effectively get the plant commissioned, and transition it into full-time operation. The plant is now extracting lithium directly from Lanxess' tail brine, on a continuous 24/7 basis and we look forward to providing additional news regarding its performance."

Standard Lithium CEO, Robert Mintak commented: *"Firstly, I would like to acknowledge the impressive efforts made both by our Arkansas and Canadian engineering teams in adapting to the extraordinary challenges of the COVID-19 pandemic. Secondly, the ability of Standard Lithium to execute on its important corporate objectives has been significantly enhanced as a result of a strong relationship with its project partner LANXESS."*

Mr. Mintak added: *"Direct Lithium Extraction has received a lot of recent media and investor attention. Standard Lithium has taken a project-focussed approach towards demonstrating our LiSTR DLE process. The successful commissioning and operation of the LiSTR extraction technology represents a significant milestone towards proof of concept and a final investment decision for our Arkansas project. Standard Lithium prides itself on a practical approach, and this has paid dividends by developing a truly innovative process that actually works in the real world not just the laboratory. This project milestone represents a major advance towards re-establishing a U.S. domestic supply of battery quality lithium chemicals."*

About Standard Lithium Ltd.

Standard Lithium (TSXV: 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. The Company is currently installing a first-of-its-kind Demonstration Plant that will use the Company's proprietary technology to selectively extract lithium from LANXESS' tailbrine. This Demonstration Plant will be used to prove commercial feasibility. The environmentally friendly process eliminates the use of evaporation ponds, reduces processing time from months to hours and greatly increases the effective recovery of lithium.

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

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. This news release may contain certain “Forward-Looking Statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws. When used in this news release, the words “anticipate”, “believe”, “estimate”, “expect”, “target”, “plan”, “forecast”, “may”, “schedule” and other similar words or expressions identify forward-looking statements or information. These forward-looking statements or information may relate to future prices of commodities, accuracy of mineral or resource exploration activity, reserves or resources, regulatory or government requirements or approvals, the reliability of third party information, continued access to mineral properties or infrastructure, fluctuations in the market for lithium and its derivatives, changes in exploration costs and government regulation in Canada and the United States, and other factors or information. Such statements represent the Company’s current views with respect to future events and are necessarily based upon a number of assumptions and estimates that, while considered reasonable by the Company, are inherently subject to significant business, economic, competitive, political and social risks, contingencies and uncertainties. Many factors, both known and unknown, could cause results, performance or achievements to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements. The Company does not intend, and does not assume any obligation, to update these forward-looking statements or information to reflect changes in assumptions or changes in circumstances or any other events affecting such statements and information other than as required by applicable laws, rules and regulations.

Contact Information:

LHA Investor Relations, Mary Magnani, (415) 433-3777; standardlithium@lhai.com



Source: Standard Lithium