

June 10, 2020



Standard Lithium Starts Commissioning of Industrial-Scale Battery-Quality Lithium Carbonate Crystallisation Plant

VANCOUVER, British Columbia, June 10, 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 report that it has completed the construction of its industrial-scale lithium carbonate crystallisation pilot plant and has now started the commissioning phase. The crystallisation plant is designed to take the intermediate product made by the Company’s LiSTR direct lithium extraction process (a high purity, concentrated lithium chloride solution) and convert it into a battery-quality (or better) lithium chemical as used by manufacturers in the lithium ion battery supply chain. The LiSTR plant recently started 24/7 operation at the project site in El Dorado, Arkansas ([see news release dated 19th May 2020](#)).

The lithium carbonate crystallisation plant has been designed around the Company’s proprietary ‘SiFT’ crystallisation technology, which was recently demonstrated to produce >99.9% purity (also known as ‘three-nines’) battery-quality lithium carbonate ([see news release dated 09th March 2020](#)). The crystallisation plant has been constructed by Saltworks Technologies Inc. at their facility in the Greater Vancouver area, and can be seen in Figures 1-3 below.

Initial commissioning of the SiFT plant has already begun, and so far, it has been hydraulically tested for integrity and all systems have been energised. Commissioning of the fully-automated control system is ongoing and is expected to be completed within 10 days. Following this, lithium chloride solutions previously produced by Standard Lithium will be used to continue the commissioning process and produce the first samples of lithium carbonate.

Dr. Andy Robinson, President and COO of Standard Lithium commented “*Saltworks has done a fantastic job delivering this state-of-the-art lithium carbonate crystallisation plant, especially given the recent complications related to COVID-19. Our plan over the coming months has necessarily been adapted to fit the current trans-border situation between Canada and the USA. As we are able to freely transport large volumes of lithium chloride product from our operational demo plant in Arkansas up to Vancouver, once commissioning is completed we will initially test and run the SiFT plant using this feedstock, thus demonstrating the total lithium extraction and crystallisation flowsheet that we have developed. Once trans-border movement of staff and equipment is relaxed, hopefully in the not too distant future, then we will transport the modules and integrate this SiFT Crystallisation Plant in to our 24/7 operations in Arkansas.*”

Figure 1: An overview of the two 40’ long modular skids that comprise the majority of the SiFT Pilot Crystallisation

Plant: <https://www.globenewswire.com/NewsRoom/AttachmentNg/6dff9f21-39dc-445d-9b4c-55c4c586eb80>

Figure 2: Overview of the hot and cold crystallisation reactors and inline filtration units : <https://www.globenewswire.com/NewsRoom/AttachmentNg/9fcd0142-4e95-4eb1-a111-af3a0ecc3df4>

Figure 3: Close-up of the fully automated control system: <https://www.globenewswire.com/NewsRoom/AttachmentNg/1ee704fe-8ac6-42a4-808d-0cbd17b056c8>

The Company also wishes to clarify that a total of 437,025 share purchase warrants were previously issued on February 20, 2020, as compensation to certain arms-length third-parties that assisted in introducing subscribers to the offering of special warrants completed by the Company, and not 452,025 warrants as indicated in the Company's news release of February 21, 2020. For further information concerning the offering, and the terms of the warrants, readers should consult the news release of February 21, 2020.

About Standard Lithium Ltd.

Standard Lithium (TSXV: SLL) is an innovative technology and lithium development company. 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 has commissioned its first of a kind industrial scale Direct Lithium Extraction Demonstration Plant at LANXESS' South Plant facility in southern Arkansas. The Demonstration Plant utilises the Company's proprietary LiSTR technology to selectively extract lithium from LANXESS' tailbrine. The Demonstration Plant is being used for proof of concept and commercial feasibility studies. The scaleable, 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 of Standard Lithium Ltd.

Robert Mintak, CEO & Director

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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.

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Source: Standard Lithium