

SWA Lithium and Koch Technology Solutions Sign License for First Commercial DLE Project in North America

Commercial-Scale DLE Column Continues to Exceed Expectations at Demonstration Plant in Arkansas

EL DORADO, Ark., Oct. 28, 2024 (GLOBE NEWSWIRE) -- SWA Lithium, the Joint Venture between Standard Lithium and Equinor which is developing the South West Arkansas Project ("SWA" or the "Project"), is pleased to announce that it has entered into a license agreement with Koch Technology Solutions LLC ("KTS") to deploy and use KTS' Li-Pro™ Lithium Selective Sorption ("Li-Pro LSS") technology at the JV's commercial plant for the SWA Phase 1 Project.

The license agreement allows the JV to utilize KTS' technology for the lifetime of the first phase of the Project, with an option for utilization in subsequent phases of the Project. Considerations and benefits of the license agreement include:

- Rights to use the Li-Pro LSS technology for subsequent phases of the JV's SWA Project;
- Certain technology performance guarantees for lithium recovery, contaminant rejection and water use;
 - Lithium recovery $\geq 95.00\%$
 - Impurity rejection Calcium, Sodium, Potassium & Magnesium $\geq 99\%$
- Technical support from KTS to fully integrate the Li-Pro LSS technology into overall process plant design;
- Continued exclusive joint development of the technology in the Smackover Formation;
- Technical support from KTS during commissioning and startup;
- License payment phased over several milestones; and
- Continued collaboration and technology refinement between SWA Lithium and KTS.

Standard Lithium's Director, President & COO, Dr. Andy Robinson commented: *"Signing this license agreement is the culmination of over two years of close work with the KTS team to refine the direct lithium extraction ('DLE') technology and integrate it into the JV's flowsheet. The Li-Pro LSS technology is now sufficiently scaled-up, tested and derisked, so not only is the JV comfortable committing to its use at commercial scale, but KTS is also able to offer performance guarantees for its commercial deployment. We view this as a significant derisking event for the Project, and it points to the successful ongoing partnership with the KTS team."*

Garrett Krall, Business Leader for Koch Technology Solutions, said: *"This license agreement for use of our Li-Pro LSS technology is another key milestone in the development of DLE as a commercially viable, economic and environmentally responsible solution to deliver against*

future lithium demand.”

UPDATED PERFORMANCE OF COMMERCIAL-SCALE DLE COLUMN

Standard Lithium is also pleased to announce the continued successful operation of the commercial-scale DLE column at its wholly-owned Demonstration Plant (“Demo Plant”) near El Dorado, Arkansas. The Company installed a commercial-scale DLE column in late March 2024 and has been operating the column continuously. The column is a Li-Pro LSS unit, supplied by KTS and identical to those currently being integrated into the front-end engineering and design (FEED) study for the SWA Project.

Since commissioning, the column has exceeded the targeted design parameters for lithium recovery and rejection of impurities. Key technical highlights of the commercial-scale DLE column are provided below:

- **Lithium recovery efficiency of 95.4%:** During a four-month continuous operating period (1st April to 31st July 2024), the Li-Pro LSS process achieved an average lithium recovery (i.e. after loading and elution) of 95.4% from the 90 gallons per minute (gpm) incoming brine flow (the average incoming brine contained 183 mg/L lithium during the same period).
- **Excellent contamination rejection rate:** During the same period, the DLE process rejected, on average;
 - Sodium – 99.9%
 - Calcium – 99.6%
 - Magnesium – 99.2%
 - Potassium – 99.7%
 - Boron – 95.4%High and consistent contaminant rejection at the DLE stage means that the eluate (the initial lithium chloride solution) is easier and cheaper to further refine and concentrate using tested and proven steps to make a concentrated and purified lithium chloride solution. This solution can then be converted to a battery quality carbonate, as has been demonstrated multiple times and at several different scales, both at the Demo Plant and off-site with various third-party vendors.
- **Nearly 10,000 operational cycles for the Li-Pro LSS technology.** The commercial-scale Li-Pro LSS column has completed over 725 operational cycles, and the Li-Pro LSS technology has completed over 9,740 operational cycles at the Demo Plant (as of early October 2024).
- **Over 24 million gallons of brine processed:** As of the end of September 2024, the Demo Plant had processed 24,446,306 gallons (92,539,335 litres) of Smackover brine, produced directly from the formation and reinjected continuously back into the same formation.



Figure 1 – Side elevation of operators working on the commercial-scale DLE column at Standard Lithium's Demonstration Plant near El Dorado, Arkansas.

About Standard Lithium Ltd.

Standard Lithium is a leading near-commercial lithium development company focused on the sustainable development of a portfolio of large, high-grade lithium-brine properties in the United States. The Company prioritizes projects characterized by the highest quality resources, robust infrastructure, skilled labor, and streamlined permitting. Standard Lithium aims to achieve sustainable, commercial-scale lithium production via the application of a scalable and fully integrated Direct Lithium Extraction ("DLE") and purification process. The Company's flagship projects are located in the Smackover Formation, a world-class lithium brine asset, focused in Arkansas and Texas. In partnership with global energy leader Equinor ASA, Standard Lithium is advancing the South West Arkansas project, a greenfield project located in southern Arkansas, and actively exploring promising lithium brine prospects in East Texas. Additionally, the Company is advancing the Phase 1A project in

partnership with LANXESS Corporation, a brownfield development project located in southern Arkansas. Standard Lithium also holds an interest in certain mineral leases in the Mojave Desert in San Bernardino County, California.

Standard Lithium trades on both the TSX Venture Exchange and the NYSE American under the symbol “SLI”; and on the Frankfurt Stock Exchange under the symbol “S5L”. Please visit the Company’s website at www.standardlithium.com.

About Equinor

Equinor is an international energy company committed to long-term value creation in a low-carbon future. Our purpose is to turn natural resources into energy for people and progress for society. Equinor’s portfolio of projects encompasses oil and gas, renewables and low-carbon solutions, with an ambition of becoming a net-zero energy company by 2050. Headquartered in Stavanger (Norway), Equinor is the leading operator on the Norwegian continental shelf. We are present in around 30 countries worldwide.

About Koch Technology Solutions (KTS)

Koch Technology Solutions is the technology licensing business of Koch Engineered Solutions (KES). KTS creates value for its customers across a growing portfolio of technologies including direct lithium extraction, the polyester value chain, and 1,4-Butanediol plus its derivatives. KTS combines its exclusive technologies, expertise, and capabilities with those of other KES companies to provide overall solutions to optimize customer’s capital investments and existing manufacturing assets.

Qualified Person

Marek Dworzanowski, EUR ING, CEng, HonFSAIMM, FIMMM, a qualified person as defined by National Instrument 43-101 – Technical Report Standards of Disclosure for Mineral Projects, and a Consulting Metallurgical Engineer who is independent of the Company, has reviewed and approved the relevant scientific and technical information in this news release.

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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.

A photo accompanying this announcement is available at
<https://www.globenewswire.com/NewsRoom/AttachmentNg/0c4dea63-0750-44b2-bea8-e287cc9be29c>

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Figure 1



Side elevation of operators working on the commercial-scale DLE column at Standard Lithium's Demonstration Plant near El Dorado, Arkansas

Source: Standard Lithium