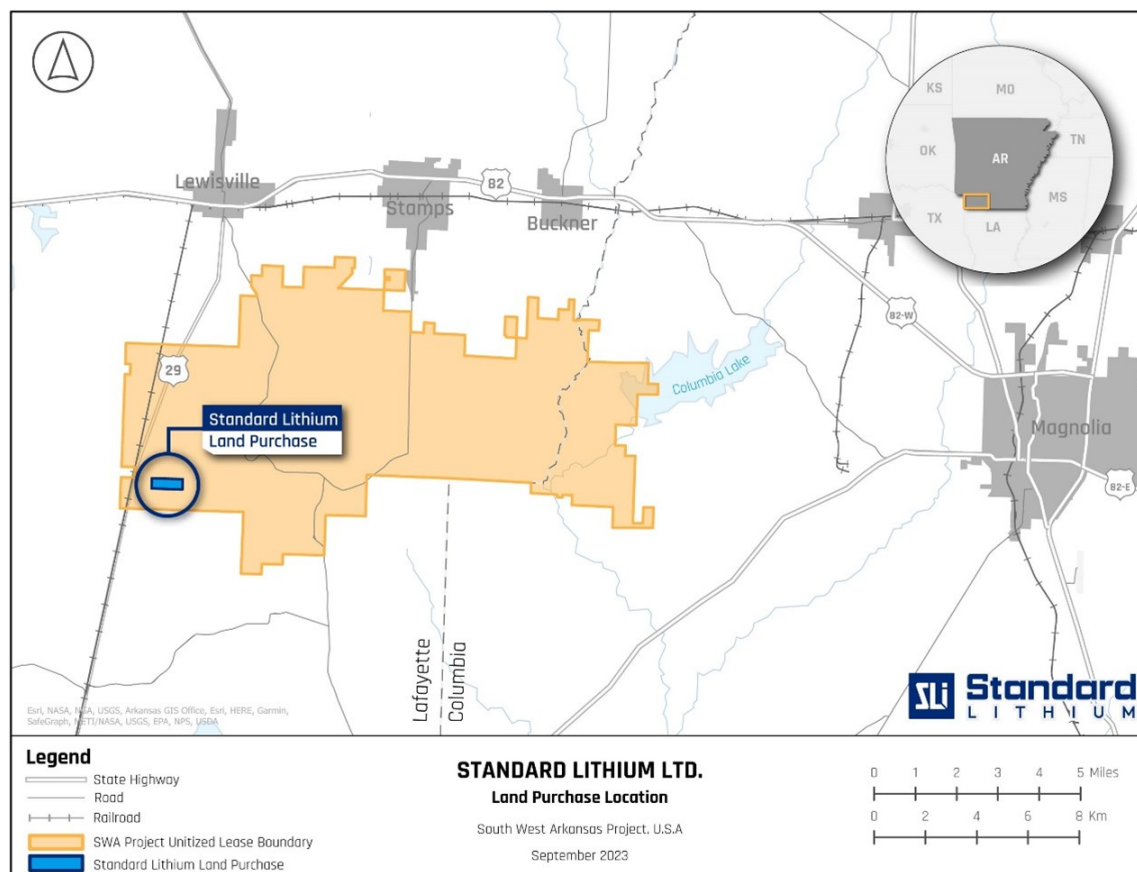


Standard Lithium Acquires Large Parcel of Land for South West Arkansas Project

EL DORADO, Ark., Sept. 13, 2023 (GLOBE NEWSWIRE) -- **Standard Lithium Ltd.** ("Standard Lithium" or the "Company") (TSXV:SLI) (NYSE American:SLI) (FRA:S5L), a leading near-commercial lithium company, today announced the acquisition of 118 acres of land intended to advance development of its South West Arkansas Project ("SWA Project" or the "Project").

Dr. Andy Robinson, President and COO of Standard Lithium, commented, "The land purchase demonstrates our commitment to advancing and de-risking the South West Arkansas Project. The land, which lies to the south west of the SWA Project's brine lease footprint, is ideally located close to a paved highway, robust regional infrastructure and a skilled workforce. This acquisition adds to our existing land options in the Project area and provides us with added design flexibility as we progress the Project to the Definitive Feasibility and FEED phase."

Figure 1: Overview of South West Arkansas Project and Land Purchase



A photo accompanying this announcement is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/d94fc7e9-9d13-412b-a19e-415b670edcfc>

The 118-acre parcel is located in Lafayette County, Arkansas near state highway 29 which historically has been used to access logging operations. A portion of the property has previously been logged and the remainder of the harvestable timber will be removed before the end of the year by the previous owner.

Figure 2: 118-acre Land Purchase Bird's Eye View



A photo accompanying this announcement is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/ed4c0da9-ca1a-407c-aaa3-79e2149454cf>

About the South West Arkansas Project

The South West Arkansas Project is located approximately 15 miles west of the City of Magnolia in southwestern Arkansas. The SWA Project's Indicated and Inferred Mineral Resource of 1.4 Mt and 0.4 Mt lithium carbonate equivalent, respectively, has some of the highest reported lithium brine concentrations in North America, averaging above 400 mg/L. The recently announced results of a Preliminary Feasibility Study demonstrate robust economics ([see press release dated 8 August 2023](#)), assuming production of at least 30,000 tonnes per year of battery-quality lithium hydroxide beginning in 2027. Currently, the Project contemplates 91 full-time equivalent employees upon reaching commercial production.

The Company anticipates completing a FEED and Definitive Feasibility Study for the SWA

Project in 2024 and beginning construction in 2025. The SWA Project is expected to reach commercial production in 2027, subject to continuing project definition, due diligence, project financing and receipt of future feasibility studies.

About Standard Lithium Ltd.

Standard Lithium is a leading near-commercial lithium development company with a portfolio of projects in progress. The Company's flagship projects, the Phase 1A Project and the South West Arkansas Project, are located in south western Arkansas in the heart of the Smackover Formation. The Company is focused on producing lithium from brine using direct lithium extraction ("DLE") across approximately 180,000 acres of leases from these two projects.

The Company operates an industrial-scale DLE Demonstration Plant at the LANXESS Project. The scalable, 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 has completed a Definitive Feasibility Study ("DFS") for its first commercial lithium extraction plant project, Phase 1A, and expects to make a Final Investment Decision in the first half of 2024, commence construction thereafter and deliver commercial production in 2026. Phase 1A is expected to produce an average 5,400 tonnes of battery-quality lithium carbonate per year over a 25-year operating life. For the South West Arkansas project, located 50 miles west of Phase 1A, Standard Lithium completed a Preliminary Feasibility Study and expects to complete a DFS by the end of 2024, commence construction in 2025 and deliver first production in 2027. The Company anticipates South West Arkansas to produce at least 30,000 tonnes per annum of battery-quality lithium hydroxide over a 20-plus year operating life.

Concurrently, the Company is pursuing resource development of other projects in the Smackover Formation in East Texas, as well as approximately 45,000 acres of mineral leases located in the Mojave Desert in San Bernardino County, California.

Standard Lithium is jointly listed on the TSX Venture Exchange and the NYSE American under the trading symbol "SLI"; and on the Frankfurt Stock Exchange under the symbol "S5L". Please visit the Company's website at <https://www.standardlithium.com>.

Qualified Person

Steve Ross, P.Geo., a qualified person as defined by National Instrument 43-101, and Vice President Resource Development for the Company, has reviewed and approved the relevant scientific and technical information in this news release.

Twitter: @standardlithium

LinkedIn: <https://www.linkedin.com/company/standard-lithium/>

Neither the 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 intended development timelines, 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.

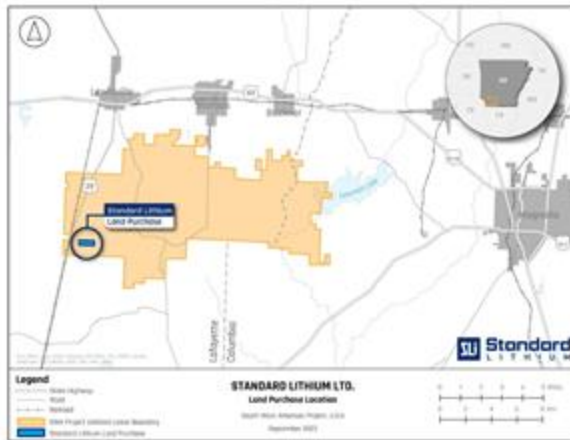
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Source: Standard Lithium

Figure 1



Overview of South West Arkansas Project and Land Purchase

Figure 2



118-acre Land Purchase Bird's Eye View