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Standard Lithium Commences Preliminary Economic Assessment to Produce Lithium Hydroxide From South Arkansas Tetra Property

EL DORADO, Ark., May 17, 2021 (GLOBE NEWSWIRE) -- **Standard Lithium Ltd.** ("Standard Lithium" or the "Company") (TSXV: SLL) (OTCQX: STLHF) (FRA: S5L), an innovative technology and lithium project development company has commenced work on a Preliminary Economic Assessment ("**PEA**") on its TETRA Property located in the south-western region of Arkansas.

The PEA will consider an integrated project including; brine supply and injection wells, pipelines and brine treatment infrastructure, a Direct Lithium Extraction plant using the Company's proprietary LiSTR technology, and a lithium chloride to lithium hydroxide conversion plant.

Standard Lithium has engaged NORAM Engineering and Constructors Ltd. ("**NORAM**") as the lead consultant, to prepare and coordinate the PEA with support of a multi-disciplinary team. NORAM will be supported by Hunt, Guillot & Associates from Ruston, Louisiana in key areas such as brine supply, injection well and pipeline design and construction costs.

In January 28, 2019, an NI 43-101 Inferred Resource of 802,000 tonnes Lithium Carbonate Equivalent ("LCE") was reported for the TETRA Property which is contained within the Smackover Formation, a Jurassic limestone aquifer that underlies the entire property. This brine resource is in an area where there is localized oil and gas production and is adjacent to Albemarle Corporation's producing brine leases.

The Company expects to complete the Preliminary Economic Assessment in early Q3 2021.

Tetra Property Highlights:

- 27,262 net acres of brine leases
- Average lithium grades for the North and South Resource Areas were 160 mg/L and 399 mg/L, respectively. Brine samples collected in 2018 contained lithium between 347 and 461 mg/L
- Significant existing infrastructure, road, power, pipelines, water and rail
- Well characterized geology with extensive data including 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 Smackover Formation.

Dr. Andy Robinson, Standard Lithium President and COO, commented, *"We continue to evaluate and accelerate our lithium brine project development activities in Southern*

Arkansas. The TETRA project is a very high quality resource with excellent lithium grades, reservoir characteristics and existing infrastructure. We have an experienced integrated technical team in place, led by NORAM, that will deliver a PEA that demonstrates the immense value it contains. This work will continue Standard Lithium's mission of combining technological improvements with the highest quality lithium brine assets to deliver the next generation of sustainable lithium products in North America."

Quality Assurance

Steve Ross, P.Geol., a Qualified Person as defined by NI 43-101, has reviewed and approved the relevant technical information that forms the basis for this news release. Mr. Ross is a consultant to the Company.

About Standard Lithium Ltd.

Standard Lithium 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's south plant facility in southern Arkansas. The demonstration plant utilizes the company's proprietary LiSTR technology to selectively extract lithium from Lanxess's tail brine. The demonstration plant is being used for proof-of-concept and commercial feasibility studies. 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 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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Source: Standard Lithium