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Standard Lithium Equinor Partnership

Creating a Sustainable U.S. Lithium Business

May 2024



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Forward-Looking Statements

Except for statements of historical fact, this Presentation contains certain "forward-looking information" within the meaning of applicable Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively referred to herein as "forward-looking information"). The statements relate to future events or the Company's future performance. All statements, other than statements of historical fact, may be forward-looking information. Information concerning mineral resource and mineral reserve estimates also may be deemed to be forward-looking information in that it reflects a prediction of mineralization that would be encountered if a mineral deposit were developed and mined. Forward-looking information generally can be identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "project", "project", "project", "project", "project", "project", "scheduled", "implement" and similar words or expressions. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information.

In particular, this Presentation contains forward-looking information, including, without limitation, with respect to the following matters or the Company's expectations relating to such matters: the Company's planned exploration and development programs (including, but not limited to, plans and expectations regarding advancement, testing and operation of the lithium extraction pilot plant and expected collaboration with Equinor ASA); commercial opportunities for lithium products; filing of technical reports; expected results of exploration; accuracy of mineral resources estimates, including the ability to develop and realize on such estimates; whether mineral resources will ever be developed into mineral reserves, and information and underlying assumptions related thereto; budget estimates and expected expenditures by the Company on its properties; regulatory or government requirements or approvals; the reliability of third party information; continued access to mineral properties or infrastructure; payments obligations pursuant to property agreements; fluctuations in the market for lithium and its derivatives; expected timing of the expenditures; performance of the Company's business and operations; changes in exploration costs and government regulation in Canada and the United States; competition for, among other things, capital, acquisitions, undeveloped lands and skilled personnel; changes in commodity prices and exchange rates; currency and interest rate fluctuations; the Company's funding requirements and ability to raise capital; geopolitical instability; war (such as Russia's invasion of Ukraine); the continued impact of the COVID-19 outbreak, including with regard to the health and safety of the Company's workforce; health and safety protocols and their efficacy and impacts on timelines and budgets; and other factors or information.

Forward-looking information does not take into account the effect of transactions or other items announced or occurring after the statements are made. Forward-looking information is based upon a number of expectations and assumptions and is subject to a number of risks and uncertainties, many of which are beyond the Company's control, that could cause actual results to differ materially from those that are disclosed in or implied by such forward-looking information. With respect to forward-looking information listed above, the Company has made assumptions regarding, among other things: current technological trends; ability to fund, advance and develop the Company's properties; the Company's ability to operate in a safe and effective manner; uncertainties with respect to receiving, and maintaining, mining, exploration, environmental and other permits; operation of a joint venture ownership structure with Equinor ASA; pricing and demand for lithium, including that such demand is supported by growth in the electric vehicle market; impact of increasing competition; commodity prices, currency rates, interest rates and general economic conditions; the legislative, regulatory and community environments in the jurisdictions where the Company operates; impact of unknown financial contingencies; market prices for lithium products; budgets and estimates of capital and operating costs; estimates of mineral resources and mineral reserves; reliability of technical data; anticipated timing and results of operation and development; inflation; war (such as Russia's invasion of Ukraine); and the impact of health and safety protocols on the Company and its business. Although the Company believes that the assumptions and expectations will prove to be correct. Since forward-looking information inherently involves risks and uncertainties, undue reliance should not be placed on such information.

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Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended.

Readers are cautioned that the foregoing lists of factors are not exhaustive. All forward-looking information in this Presentation. The Company does not undertake any obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law. All forward-looking information contained in this Presentation is expressly qualified in its entirety by this cautionary statement. Additional information about these assumptions and risks and uncertainties is contained in the Company's filings with securities regulators, including the Company's most recent MD&A for our most recently completed financial year and, if applicable, interim financial period, which are available on SEDAR+ at www.sedar.com and EDGAR at www.sec.gov.

Currency

Except where otherwise indicated, all references to currency in this Presentation are to US Dollars ("\$").

NI 43-101 Disclosure

Scientific and technical information in this Presentation has been reviewed and approved by Steve Ross, P. Geol., Vice President Resource Development, of the Company, who is a "qualified person" under National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").

Further information about the Lanxess Property ("Lanxess") Project, including a description of key assumptions, parameters, methods and risks, is available in the NI 43-101 technical report titled "NI 43-101 Technical Report for the Definitive Feasibility Study for Commercial Lithium Extraction Plant at Lanxess South Plant", dated October 18, 2023 ("Lanxess DFS"), available under the Company's SEDAR+ profile.

Further information about the South West Arkansas ("SWA") Project, including a description of key assumptions, parameters, methods and risks, is available in the NI 43-101 technical report titled "NI 43-101 Technical Report South West Arkansas Project Pre-Feasibility Study" dated September 18, 2023 (the "South West Arkansas PFS"), available under the Company's SEDAR+ profile.

The mineral resources and mineral reserves contained in this Presentation have been prepared in accordance with the requirements of securities laws in effect in Canada, including NI 43-101, which governs Canadian securities law disclosure requirements for mineral properties. NI 43-101 differs from the requirements of the United States Securities and Exchange Commission ("SEC") that are applicable to domestic United States reporting companies. Any mineral resources or reserves reported by the Company herein may not be comparable with information made public by United States companies subject to the SEC's reporting and disclosure requirements.

Non-GAAP Measures

This Presentation includes certain performance measures ("non-GAAP measures") which are not specified, defined, or determined under generally accepted accounting principles (in the Company's case, International Financial Reporting Standards, or "IFRS").

These are common performance measures in the lithium mining industry, but because they do not have any mandated standardized definitions, they may not be comparable to similar measures presented by other issuers. Accordingly, the Company uses such measures to provide additional information and readers should not consider them in isolation or as a substitute for measures of performance prepared in accordance with generally accepted accounting principles ("GAAP").

Landmark Partnership at South West Arkansas and Texas

Equinor acquires 45% interest in the South West Arkansas (SWA) Project and East Texas Properties

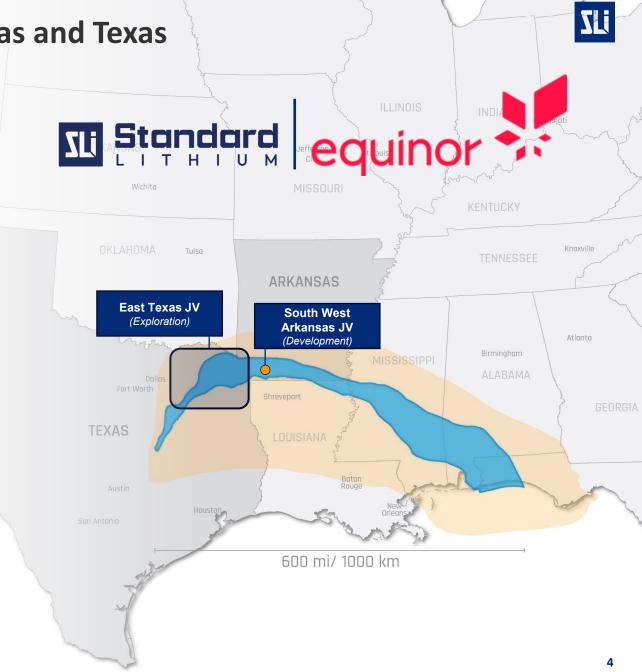
- ► Standard Lithium remains majority owner and operator with 55% interest
- ▶ Partners fund their *pro rata* share of expenditures post cost-carry by Equinor

Equinor commits to contribute up to US\$160 million

- ▶ Upfront Payment: US\$30 million to Standard Lithium
- Sole Funded Workplan: Equinor to spend US\$60 million (SWA Project and East Texas)
- ► Milestone Payments: Up to US\$70 million subject to positive Final Investment Decisions (FID); significant contribution to our equity at FID

Partners will utilize core competencies to advance projects

- Both partners will contribute to project execution, decision-making and governance of JVs
- Progressing SWA Project to Final Investment Decision and East Texas to initial resource
- ► Equinor partnership is additive to existing strategic partnerships with Koch and Lanxess



Equinor Brings a Breadth of Capabilities





An international energy company headquartered in Stavanger, Norway with operations in oil and gas, renewables and low carbon solutions

Strong Financial Partner

+\$80 billion
Market
capitalization¹

\$107.2 billion in 2023 revenue

AA- (S&P) and Aa2 (Moodys) Investment Grade Credit Rating

\$36.2 billion in 2023 adjusted earnings

Significant Global Capability

Operating in around 30 countries

23,000 employees globally

~67% owned by the Government of Norway

Largest single supplier of energy to Europe

Significant U.S. Operations

Significant U.S. E&P and renewables business with \$4.3 billion in 2023 revenue and \$12.6 billion in assets

Committed to Energy Transition

20% of 2023 capital to renewables / low carbon solutions

6.7Kg CO₂/BOE vs IOGP average of 16 Kg/BOE²

^{1.} Market capitalization as at May 8, 2024

^{2.} Equinor 2023 Scope 1 CO₂ emissions, Equinor operated, 100% basis Source: Equinox ASA 2023 Annual Report

Transaction Highlights



Strategic and Complementary

Combines SLI's world-class lithium assets and brine processing expertise with the sub-surface and project delivery capabilities of a global energy major.



Lays the Foundation for Project Success

Equinor are experts in sub-surface reservoir development and production, large project construction, financing and operations. Additive to existing strategic relationship with Koch on direct lithium extraction (DLE)



Provides Financial Capabilities to Aggressively Advance Projects

Immediately funds Standard Lithium to key project milestones and beyond cost carry with Equinor putting up its 45% *pro rata* capital contributions



Project Excellence

Equinor has a track record of project excellence and shared values of innovation, integrity and responsible development



Building a Sustainable US Lithium Business

Developing a sustainable lithium business, adhering to high levels of environmental and social responsibility



Financing Without Share Dilution

Provides US\$30 million to Standard Lithium and US\$60 million to the project work programs without the issuance of any Standard Lithium shares



Delivering on our partnership strategy to maximize project success

Strategic partnership with a major energy company to mitigate key areas of project and cost risk, expand collective capabilities and accelerate time to production



Strategy of Project De-Risking and Execution



Equinor's partnership and investment in Standard Lithium enhances project execution capabilities and validates development strategy



Expansion of Core Competencies

Equinor's significant project teams bring with them extensive expertise including in sub-surface, project finance, project delivery and commercial operations, complementing already existing expertise on processing and DLE through the Koch partnership



Resource and DLE Technology Validation

Validation of the quality and scale of resource at Standard Lithium's projects, as well as our DLE and brine processing technology; reinforces the Smackover Formation as the next major "lithium field"



Strengthens Financial Support

Equinor and Standard Lithium will work collaboratively on project financing with Equinor funding its 45% of project equity; Equinor as a partner broadens access to project capital and brings with it a AA-credit rating (S&P)



Economies of Scale & Established Supply Chain Networks

Equinor's significance as a major global energy producer provides access to supply chain relationships and improved pricing power.



Track Record of ESG and Project Excellence

Well developed frameworks in environmental, sustainability and governance with a track record of performance globally



Enhancing Commercial Traction

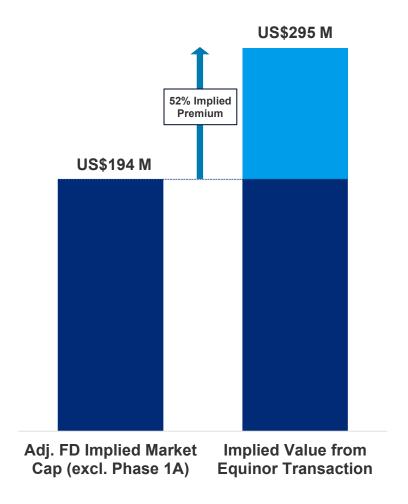
The partnership will provide further comfort to future potential off-take partners enabling better commercial terms



Illustrative Implied Offer Value

Illustrative Implied Offer Value Relative to Adjusted Market Capitalization of Standard Lithium¹

LANXESS Phase 1A Consensus-Based NPV ²	US\$287 M
SLI Consensus-Based P/NAV ³	0.17x
Implied Market Value of LANXESS Phase 1A	US\$48 M
SLI Fully Diluted (FD) Market Cap ⁴	US\$242 M
Less Implied FD Market Value of Phase 1A	(US\$48 M)
Adjusted Fully Diluted Market Cap (excl. Phase 1A)	US\$194 M
Total Consideration to Standard Lithium ⁵	US\$133 M
Divided by Equinor's 45% interest	÷ 45%
Implied Value of 100% of SWA and East Texas	US\$295 M
Equinor Offer Value Implied Premium ⁶	52%



^{1.} For illustrative purposes only, EQNR offer was for purchase of subsidiary asset interest only, not for Standard Lithium parent company equity

^{2.} Based on the average NPV from available broker equity research reports

^{3.} Based on the ratio of Standard Lithium's share price to average NAV per share using available broker equity research reports, for illustrative purposes only

^{4.} Fully diluted market capitalization of Standard Lithium as May 7, 2024

^{5.} Comprised of the \$30 million in upfront consideration to Standard Lithium, 55% of the \$60 million carry costs attributable to Standard Lithium and assuming the full amount of the milestone payments on an undiscounted basis

^{6.} Calculated as the Implied Value of 100% of SWA and East Texas divided by the Adjusted Fully Diluted Market Cap (excl. Phase 1A) on a net basis

The Path Forward with Equinor

Advancing the South West Arkansas Project to Final Investment Decision (FID) in 2025

- ► Front end engineering design studies (FEED) and Definitive Feasibility Study (DFS) are underway
- ► Standard Lithium and Equinor will work collectively on:
 - Additional drilling to expand resource and understanding
 - Finalize well field design
 - Finalize design and phasing of processing facility
 - Project financing
 - Permitting
- ▶ Building and implementing a project ESG framework to the highest international standards

Building world-class projects in East Texas

- Capitalizing on almost 4 years of work in East Texas to identify the highest quality resources
- Standard Lithium and Equinor will work collectively on:
 - Expanding mineral leases in the best resource zones
 - Exploration drilling
 - Definition of potential project areas
 - Reservoir development
 - Initial resource estimate within next 12 months
- ► Continue working with state authorities, agencies, and stakeholders to develop a robust regulatory framework for responsible lithium brine development in East Texas

Snapshot | North America's Premier Lithium Brine Resource

ZLi

Smackover Formation: The Future of Responsible Lithium Development Starts Here



South West Arkansas





Ownership: 55% Standard Lithium¹

Location: Within the Smackover Formation, 15 miles west of Magnolia, Arkansas adjacent to Albemarle's bromine operations and Exxon Mobil's lithium development project

Key Feature: Indicated Resource of 1.4 Mt and Inferred Resource of 0.4 Mt lithium carbonate equivalent (LCE) at average lithium concentrate of 437 mg/L²

Production: Base case 30,000 tonnes, Upper Case 35,000 tonnes per annum battery quality lithium LiOH²

- 1. May 8, 2024 news release regarding Equinor Partnership
- 2. SWA Preliminary Feasibility Study, September 18, 2023
- 3. October 25, 2023 news release regarding East Texas drill results
- 4. LANXESS Definitive Feasibility Study dated October 18, 2023
- 5. December 4, 2023 news release regarding commercial relationship with LANXESS



East Texas Properties





Ownership: 55% Standard Lithium¹

Location: Leasing underway in East Texas Smackover Formation

Key Feature: Highest reported lithium-in-brine grades in North America up to 806 mg/L, including significant potash and bromine concentrations³

Production: Target to secure a resource-based capacity for the potential production of **100,000+ TPA LCE**



LANXESS Phase 1A



Ownership: 100% Standard Lithium⁵

Location: Brownfield project, bolt-on operation to existing commercial brine operations at LANXESS South Plant outside El Dorado, Arkansas

Key Feature: Existing infrastructure providing brine flow of 3,000 gallons per minute from LANXESS extraction and reinjection infrastructure, average lithium grade of 217 mg/L over 25 year project life⁴

Production: Average production 5,700 tpa over the first 5 years and 5,400 tpa over the 25 year project life of battery quality lithium carbonate⁴

South West Arkansas (SWA) Project

The SWA Project with...

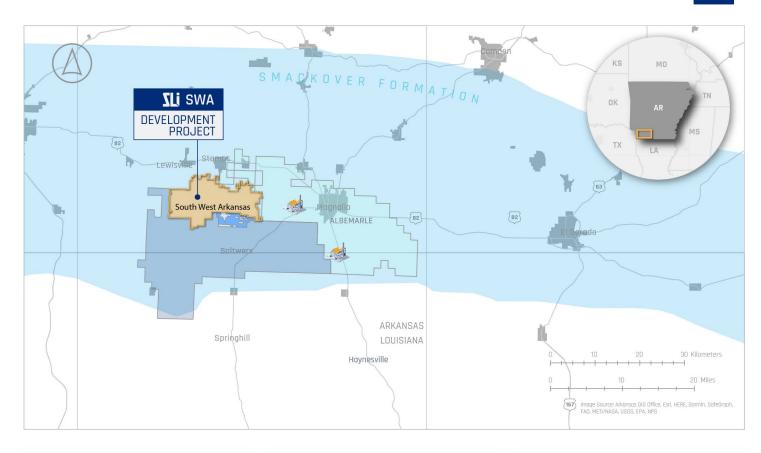
- lithium avg. grade of 437 mg/L (max of 597 mg/L)¹;
- planned annual output of +30,000 tonnes lithium chemicals¹;
- existing project and regional infrastructure;
- strong local workforce;
- friendly regulatory environment; and
- path to FID in 2025...

...results in the SWA project being a globally significant potential source of lithium

Location: Adjacent to Albemarle's brine operations and Exxon Mobil's lithium exploration project, the SWA project benefits from infrastructure, regional expertise and established regulatory regime

Lithium Grade: The SWA Project boasts an average lithium grade of 437 mg/L with a max grade of 597 mg/L, higher than other North American brine projects

Significance: Base case production of 30,000 tonnes per annum (tpa) of battery-quality lithium hydroxide, with an upside case of 35,000 tpa, based on the 2023 Preliminary Feasibility Study. Potential for higher total production rates with project optimization



1.4 / 0.4Mt

LCE Estimated Indicated / Inferred Resource²

30K
Tonnes Per Annum BQ

Li Chemicals

3.1B (8%) Post Tax

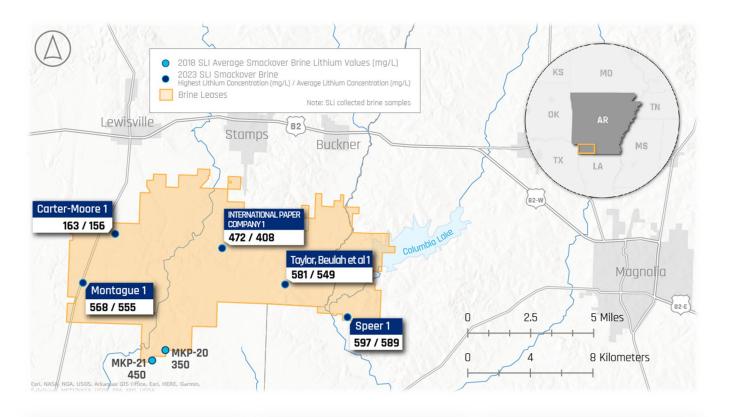
^{1.} Pre-Feasibility Study as of Q3 2023; all model outputs are expressed on a 100% project ownership basis.

^{2.} Includes Indicated Resource of 1.4Mt and Inferred Resource of 0.4Mt lithium carbonate equivalent ("LCE") at an average grade of 437 mg/L

South West Arkansas (SWA) Project

Located near Magnolia, Standard Lithium has drilled some of the highest confirmed lithium-in-brines grades in Arkansas: 597 mg/L

Summary Metrics (US\$)¹	Base Case	High Case
Annual Production	30,000 tonnes LiOH	35,000 tonnes LiOH
Ind. / Inf. Resource ²	1.4 Mt / 0.4 Mt LCE	1.4 Mt / 0.4 Mt LCE
Development Capex ³	\$1.274 billion	\$1.360 billion
Operating Life	20 years	20 years
Average Opex ⁴	\$4,073 per tonne	\$3,964 per tonne
NPV (8%) After-Tax @ \$30,000/t	\$3.1 billion	\$3.7 billion
IRR After-Tax	32.8%	35.4%



437 mg/L

Average Lithium
Concentration²

36k+
Acres of Proposed

Unitized Brine Leases

424
Wells Drilled in Area

4. Operating cost per tonne over life of the project.

^{1.} Pre-Feasibility Study as of Q3 2023; all model outputs are expressed on a 100% project ownership basis.

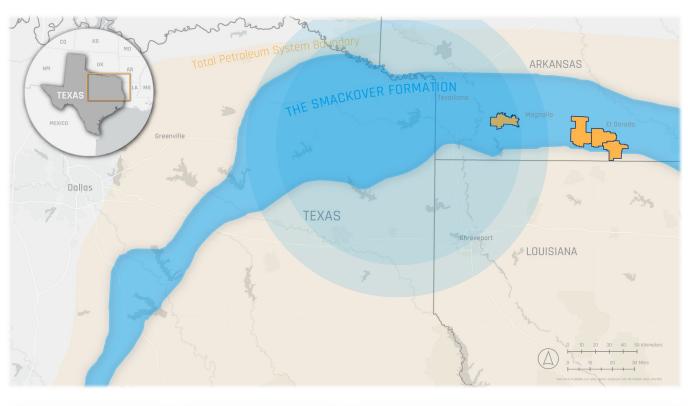
^{2.} Includes Indicated Resource of 1.4Mt and Inferred Resource of 0.4Mt lithium carbonate equivalent ("LCE") at an average grade of 437 mg/L.

^{3.} Includes 20% contingency on capital costs.

East Texas Greenfield Exploration

Standard Lithium has secured a significant brine lease position, drilled, and sampled lithium brine showing significant potential to expand resource and future production





644 mg/L

Average Lithium

Concentration¹

806 mg/L
Highest Lithium
Concentration¹

Opportunity to develop large-scale, industry-leading lithium projects in Texas

SLi

East Texas Greenfield Exploration

Targeting locations with optimal brine resources to secure a foothold for large-scale production

STATUS: Resource Definition

- Team of Smackover specialists have been working for the past 4 years to identify the most prospective areas to secure high-quality brine resources in East Texas
- ► Acquiring brine lease positions and mineral rights in key project areas
- ► Three new wells drilled with additional wells planned for 2025/6
- ► Samples collected to date were tested by third parties to confirm lithium concentrations ranging from 298 to 806 mg/L¹
- ► To the understanding of management, these are the **highest tested**lithium brine concentrations in North America



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Leading a new era of responsible lithium production in America

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