



**STANDARD LITHIUM LTD.**

**ANNUAL INFORMATION FORM  
for the Fiscal Year ended June 30, 2021**

**Dated October 28, 2021**

**CORPORATE OFFICE**

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## PRELIMINARY NOTES AND CAUTIONARY STATEMENT

### Date of Information

All information in this Annual Information Form (“AIF”) is as of June 30, 2021, unless otherwise indicated.

### Cautionary Notes to U.S. Investors Concerning Resource Estimates

This AIF has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of the U.S. securities laws. In particular, and without limiting the generality of the foregoing, the terms “inferred mineral resources,” “indicated mineral resources,” “measured mineral resources” and “mineral resources” used or referenced in this AIF are Canadian mineral disclosure terms as defined in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“**NI 43-101**”) under the guidelines set out in the 2014 Canadian Institute of Mining, Metallurgy and Petroleum Standards for Mineral Resources and Mineral Reserves, Definitions and Guidelines, May 2014 (the “**CIM Standards**”). The CIM Standards differ significantly from standards in the United States included in U.S. Securities and Exchange Commission (the “**SEC**”) Industry Guide 7.

The SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the U.S. Securities Exchange Act of 1934, as amended (the “**Exchange Act**”). These amendments became effective February 25, 2019 (the “**SEC Modernization Rules**”) with compliance required for the first fiscal year beginning on or after January 1, 2021. Under the SEC Modernization Rules, the historical property disclosure requirements for mining registrants included in SEC Industry Guide 7 will be rescinded and replaced with disclosure requirements in subpart 1300 of SEC Regulation S-K. Following the transition period, as a foreign private issuer that is eligible to file reports with the SEC pursuant to the multi-jurisdictional disclosure system, the Company is not required to provide disclosure on its mineral properties under the SEC Modernization Rules and will continue to provide disclosure under NI 43-101 and the CIM Definition Standards.

As a result of the adoption of the SEC Modernization Rules, the SEC will recognize estimates of “measured mineral resources,” “indicated mineral resources” and “inferred mineral resources.” In addition, the SEC has amended its definitions of “proven mineral reserves” and “probable mineral reserves” to be “substantially similar” to the corresponding definitions under the CIM Standards that are required under NI 43-101. Accordingly, during this period leading up to the compliance date of the SEC Modernization Rules, information regarding mineral resources or mineral reserves contained or referenced in this AIF may not be comparable to similar information made public by companies that report in accordance with U.S. standards. While the above terms are “substantially similar” to CIM Definitions, there are differences in the definitions under the SEC Modernization Rules and the CIM Definition Standards. Accordingly, there is no assurance any mineral reserves or mineral resources that the Company may report as “proven mineral reserves,” “probable mineral reserves,” “measured mineral resources,” “indicated mineral resources” and “inferred mineral resources” under NI 43-101 would be the same had the Company prepared the reserve or resource estimates under the standards adopted under the SEC Modernization Rules.

## **Currency**

Except where otherwise indicated, all references to currency in this AIF are to Canadian Dollars (“\$”).

## **Forward-Looking Information**

Except for statements of historical fact, this AIF 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”, “predict”, “propose”, “potential”, “target”, “intend”, “could”, “might”, “should”, “believe”, “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. 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 AIF 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), commercial opportunities for lithium products, expected results of exploration, accuracy of mineral or resource exploration activity, accuracy of mineral reserves or 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 and share issuances 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, expectations and anticipated impact of the COVID-19 outbreak, including with regard to the health and safety of the Company’s workforce, COVID-19 protocols and their efficacy and impacts on timelines and budgets, and other factors or information.



Forward-looking statements do 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; 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; and the impact of COVID-19 on the Company and its business. Although the Company believes that the assumptions and expectations reflected in such forward-looking statements are reasonable, the Company can give no assurance that these 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.

Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, but are not limited to: general economic conditions in Canada, the United States and globally; industry conditions, including the state of the electric vehicle market; governmental regulation of the mining industry, including environmental regulation; geological, technical and drilling problems; unanticipated operating events; competition for and/or inability to retain drilling rigs and other services and to obtain capital, undeveloped lands, skilled personnel, equipment and inputs; the availability of capital on acceptable terms; the need to obtain required approvals from regulatory authorities; uncertainties associated with estimating mineral resources and mineral reserves, including uncertainties relating to the assumptions underlying mineral resource and mineral reserve estimates; whether mineral resources will ever be converted into mineral reserves; uncertainties in estimating capital and operating costs, cash flows and other project economics; liabilities and risks, including environmental liabilities and risks inherent in mineral extraction operations; health and safety risks; risks related to unknown financial contingencies, including litigation costs, on the Company's operations; unanticipated results of exploration activities; unpredictable weather conditions; unanticipated delays in preparing technical studies; inability to generate profitable operations; restrictive covenants in debt instruments; lack of availability of additional financing on terms acceptable to the Company; intellectual property risk; stock market volatility; volatility in market prices for commodities; liabilities inherent in the mining industry; the development of the COVID-19 global pandemic; changes in tax laws and incentive programs relating to the mining industry; other risks pertaining to the mining industry; conflicts of interest; dependency on key personnel; and fluctuations in currency and interest rates, as well as those factors discussed in the section entitled "Risk Factors" in this AIF.



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 statements, 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 AIF speaks as of the date of this AIF. 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 AIF 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 management's discussion and analysis for our most recently completed financial year and, if applicable, interim financial period, which are available on SEDAR at [www.sedar.com](http://www.sedar.com) and EDGAR at [www.sec.gov](http://www.sec.gov).

### **Certain Other Information**

The Company's filings through SEDAR are not incorporated by reference in this AIF. Information contained on the Company's website is also not incorporated by referenced in this AIF.

Certain information in this AIF is obtained from third party sources, including public sources, and there can be no assurance as to the accuracy or completeness of such information. Although believed to be reliable, management of the Company has not independently verified any of the data from third party sources nor ascertained the validity or accuracy of the underlying economic assumptions relied upon therein, and the Company does not make any representation as to the accuracy of such information.

The preliminary economic assessments (each, a "**PEA**") included herein are preliminary in nature and include inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEAs will be realized. Additional work is required to upgrade the mineral resources to mineral reserves. In addition, the mineral resource estimates could be materially affected by environmental, geotechnical, permitting, legal, title, taxation, socio-political, marketing or other relevant factors.



## CORPORATE STRUCTURE

### Name, Address and Incorporation

Standard Lithium Ltd. ("**Standard**" or the "**Company**") was incorporated under the laws of the Province of British Columbia on August 14, 1998 under the name "Patriot Petroleum Corp." At its annual general meeting held on November 3, 2016, the shareholders of the Company approved the change of name of the Company to "Standard Lithium Ltd." and to the continuance of the Company from the *Business Corporations Act* (British Columbia) to the *Canada Business Corporations Act*.

Standard is an innovative technology and lithium development company focused on the sustainable development of a portfolio of lithium-brine bearing properties in the United States utilizing proprietary Direct Lithium Extraction ("DLE") and purification technologies.

The Company's flagship project is located in southern Arkansas, where it is engaged in the testing and proving of commercial viability of lithium extraction from over 150,000 acres of permitted brine operations (the "**LANXESS Property**"). The Company has commissioned its first industrial-scale direct lithium extraction demonstration plant (the "**Demonstration Plant**") at LANXESS' (as defined herein) south plant facility connected to existing LANXESS infrastructure. The Demonstration Plant utilizes the Company's proprietary LiSTR technology to selectively extract lithium from brine that is a byproduct of existing bromine production facilities run by LANXESS. The Demonstration Plant is being used for proof-of-concept and commercial feasibility studies. The Company is also pursuing the resource development of over 27,000 acres of separate brine leases and deeds located in southwestern Arkansas (the "**South-West Arkansas Project**" (formerly known as the "TETRA Project"), and together with the LANXESS Property, the "**Arkansas Lithium Project**"). In addition, the Company has an interest in certain mineral leases located in the Mojave Desert in San Bernardino county, California.

Standard is listed on the TSX Venture Exchange ("**TSXV**") and trades under the symbol "SLI", on the NYSE American, LLC (the "**NYSE American**") under the symbol "SLI" and on the Frankfurt Stock Exchange ("**FRA**") under the symbol "S5L". The Company is a reporting issuer in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and files its continuous disclosure documents with the Canadian Securities Authorities in such provinces. Such documents are available on SEDAR at [www.sedar.com](http://www.sedar.com).

The Company's corporate office is located at Suite 110, 375 Water Street, Vancouver, British Columbia, V6B 5C6 and its registered office is located at Suite 2200, 885 West Georgia Street, Vancouver, British Columbia, V6C 3E8.





## Intercorporate Relationships

Standard has six subsidiaries being, Arkansas Lithium Corp. (which operates the Demonstration Plant), California Lithium Ltd., Texas Lithium Corp. and 1093905 Nevada Corp., which are incorporated under the laws of Nevada, Texas Lithium Holdings Corp., which is incorporated under the laws of the Province of British Columbia and 1093905 LLC, which is incorporated under the laws of Delaware (the “**Subsidiaries**”). Each of the Subsidiaries are directly or indirectly wholly-owned by Standard.

## GENERAL DEVELOPMENT OF THE BUSINESS

### Three Year History

#### *2018 - 2019 Developments*

On February 21, 2018, the Company announced the implementation of a restricted share unit plan along with the grant of an aggregate of 2,100,000 restricted share units thereunder (the “**RSUs**”). The RSUs were to be granted to directors and officers of the Company, based on a common share value of \$2.10, with vesting occurring in three equal tranches every four months for a period of twelve months. On October 25, 2018, the Company issued a news release clarifying that the board of directors of the Company (the “**Board**” or “**Board of Directors**”) ultimately elected not to implement a restricted share unit plan at that time and would not be granting the RSUs.

On May 9, 2018 the Company announced the signing of a memorandum of understanding (“**LANXESS MOU**”) with global specialty chemicals company LANXESS Corporation (“**LANXESS**”) and its US affiliate Great Lakes Chemical Corporation (“**GLCC**”), with the purpose of testing and proving the commercial viability of extraction of lithium from brine (“**tail brine**”) that is produced as part of LANXESS’s bromine extraction business at its three Southern Arkansas facilities.

The LANXESS MOU sets out the basis on which the parties have agreed to cooperate in a phased process towards developing commercial opportunities related to the production, marketing and sale of battery grade lithium products that may be extracted from tail brine and brine produced from the Smackover Formation. The LANXESS MOU forms the basis of what will become a definitive agreement and is binding until the execution of a more comprehensive agreement that the parties may execute on the completion of further development phases. The Company has paid an initial US\$3,000,000 reservation fee to LANXESS to, locate and interconnect a lithium extraction pilot plant at one of LANXESS processing facilities in south Arkansas, secure access to tail brine produced as part of LANXESS bromine extraction business, and provide logistics and other support as may be required to operate the pilot plant with additional fees and obligations in the future subject to certain conditions.

On May 15, 2018, the Company entered into a license, exploration and option agreement (the “**TETRA 2<sup>nd</sup> Option Agreement**”) with Tetra Technologies Inc. (“**TETRA**”), to formalise the memorandum of understanding originally signed on October 23, 2017 (the “**MOU**”), pursuant to which the Company has the rights to conduct lithium brine exploration activities on a total of approximately 23,940 acres of mineral claims located in the Bristol Dry Lake and Cadiz Dry Lake





regions in San Bernardino County, California. The Company will initially acquire the right to conduct lithium exploration activities on the properties located in Bristol Dry Lake and Cadiz Dry Lake, in consideration for a series of cash payments and share issuances totaling US\$2,700,000 and 3,400,000 Shares (which, for greater certainty, is in addition to the US\$100,000 non-refundable deposit paid in connection with the MOU), to be completed over a sixty-month period. The cash payments and share issuances to be made to TETRA, are further described “Description of the Business – Arkansas Lithium Project” below.

On July 26, 2018, the Company changed its financial year-end from December 31 to June 30.

On September 4, 2018, the Company announced the appointment of Robert Cross to its Board of Directors as Non-Executive Chairman. Mr. Cross is an engineer with 25 years of experience as a financier and company builder in the mining and oil & gas sectors. He co-founded and serves as Chairman of B2Gold, a top performing growing gold producer which will achieve almost one million ounces of low-cost gold production in 2020. He was also co-founder and Chairman of Bankers Petroleum Ltd., co-founder and Chairman of Petrodorado Energy Ltd., and until October 2007, was the Non-Executive Chairman of Northern Orion Resources Inc. Between 1996 and 1998, Mr. Cross was Chairman and CEO of Yorkton Securities Inc. From 1987 to 1994, he was a Partner, Investment Banking with Gordon Capital Corporation in Toronto. Mr. Cross has an Engineering Degree from the University of Waterloo (1982) and received an MBA from Harvard in 1987.

On November 9, 2018, the Company signed a term sheet (the “**LANXESS JV Term Sheet**”) with LANXESS for a contemplated joint venture to coordinate in the commercial development of lithium extracted from the Smackover Formation. The Company is working with LANXESS in a phased approach as per terms of a binding memorandum of understanding, to develop commercial opportunities related to the production, marketing and sale of battery grade lithium products extracted from brine produced from the Smackover Formation.

Under the LANXESS JV Term Sheet, it is proposed that the parties would form a joint venture in which LANXESS would contribute lithium extraction rights and grant access to its existing infrastructure, and the Company would contribute existing rights and leases held in the Smackover Formation and the pilot plant being developed on LANXESS’ property, as well as its proprietary extraction processes including all relevant intellectual property rights. It is anticipated that, subject to completion of due diligence, the Company would initially hold a 30% equity interest in the joint venture, with the balance held by LANXESS. Subject to the satisfaction of certain conditions, the Company would have the option to increase its interest in the joint venture to 40%.

Upon proof of concept, LANXESS is prepared to provide funding to the joint venture to allow for commercial development of the future commercial project, and it is anticipated that the joint venture will include options for the Company to participate in project funding on similar terms. In connection with development of the joint venture, it is further contemplated that LANXESS will enter into a supply and distribution arrangement in which all merchant market sales of lithium derived from the joint venture will be distributed by LANXESS. The final terms of the joint venture and any funding and distribution arrangements remain subject to completion of due diligence, technical proof of concept, normal economic viability studies (e.g. Preliminary Feasibility Study, etc.) to confirm the technical feasibility and economic viability of the project, and the negotiation of definitive agreements between the parties.



On November 27, 2018, the Company entered into a share purchase agreement with Craig Johnstone Brown (“**Brown**”) to acquire all of the issued and outstanding share capital of 2661881 Ontario Limited, a company then-owned by Brown, which held the intellectual property rights to a process for the selective extraction of lithium from brine solutions (the “**Brown SPA**”). As consideration for the transaction, the Company completed a series of cash payments and Share issuances to Brown totaling \$1,050,000 and 1,000,000 Shares; the acquisition completed on December 13, 2019.

On January 28, 2019, the Company announced a maiden resource estimate on the South-West Arkansas Project, 27,262 net brine acres located in Columbia and Lafayette Counties, Arkansas held pursuant to the TETRA 1<sup>st</sup> Option Agreement.

On February 28, 2019, the Company filed a technical report in respect of the South-West Arkansas Project on SEDAR.

On March 20, 2019, the Company engaged Advisian, the consulting arm of WorleyParsons Canada Services Ltd. (“**Worley**”) to complete a PEA of its LANXESS Property in the south-central region of Arkansas, USA.

On June 19, 2019, the Company announced the results of its PEA and updated Mineral Resource estimate on its LANXESS Property in the south-central region of Arkansas, USA. See “Mineral Properties – Arkansas Lithium Project”.

#### *2019 - 2020 Developments*

On October 15, 2019, the Company announced that the final modules of the Company’s “LiSTR” direct lithium extraction Demonstration Plant had been transported to and were currently being installed at the Arkansas Lithium Project.

On October 28, 2019, the Company agreed to accelerate the timeframe of completion of the payments and Share issuances detailed under the Brown SPA. Under the revised agreement, the Company will make (a) a cash payment of \$250,000 on or before November 15, 2019 (paid); and (b) a further \$250,000 (paid) and the issuance of 500,000 Shares (issued) on or before December 31, 2019. The Company completed the acquisition on December 13, 2019.

On December 2, 2019, the Company announced the successful installation of the Demonstration Plant at LANXESS’ South Plant facility in southern Arkansas and that the Company’s project team had also installed the site office/control room, the lithium-specific analytical laboratory, and a steel-framed, all-weather structure that allows year-round operation.

On March 9, 2020, the Company announced that it had produced its first >99.9% purity (also known as ‘three-nines’) battery quality lithium carbonate using the Company’s proprietary SiFT (“**SiFT**”) crystallisation technology.

On May 19, 2020, the Company announced the successful start-up of the Demonstration Plant which is now operating on a 24/7 basis, extracting lithium directly from LANXESS’ tail brine.

On June 9, 2020, the Company reported that it had completed the construction of its SiFT



crystallization pilot plant.

### *2020 – 2021 Developments*

On July 15, 2020, the Company announced that its SiFT crystallization pilot plant was beginning initial lithium carbonate crystallization work and that the commissioning phase of the plant had been successfully completed.

On September 9, 2020, the Company announced it had shipped its first large volume of lithium chloride product from the Demonstration Plant for final conversion to lithium carbonate.

On January 18, 2021, announced that its Board has developed a new long-term incentive plan (the “**LTIP**”) intended to enhance shareholder value and align management compensation with performance and the achievement of milestones in the development of the Company. Under the terms of the LTIP, the Board of Directors has granted an aggregate of 960,000 performance share units to certain officers and directors of the Company. Each restricted share unit represents the right to receive, once vested upon the achievement of performance milestones, one common share in the capital of the Company. Implementation of the LTIP remains subject to ratification by disinterested shareholders of the Company and approval of the TSX Venture Exchange.

On March 1, 2021, the Company announced that it successfully completed the conversion of its Arkansas-produced lithium chloride into 99.985% pure lithium carbonate using Original Equipment Manufacturers (“**OEM**”) technology. The Company also announced that it commenced work to assess the feasibility of directly converting LiCl produced by the Demonstration Plant into battery quality lithium hydroxide.

On April 5, 2021, the Company announced that the Honorable Francis R. Fannon has joined the company in the role of Strategic Advisor.

On May 17, 2021, the Company commenced work on a PEA on its South-West Arkansas Project. The Company engaged NORAM Engineering and Constructors Ltd. (“**NORAM**”) as the lead consultant, to prepare and coordinate the PEA. In carrying out the PEA, 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.

On June 14, 2021, the Company announced that LANXESS elected for the early conversion in full of the Loan (as defined herein).

In June 2021, the Company reorganized certain of its Canadian subsidiaries such that: 2661881 Ontario Limited (“**2661881**”), Moab Minerals Corp. and Vernal Minerals Corp. were continued under the *Canada Business Corporations Act* (resulting in 2661881 changing its name to 13075931 Canada Inc. (“**13075931**”)); these entities were combined into one entity, being 13075931, pursuant to a horizontal short-form amalgamation; and thereafter, the Company and 13075931 amalgamated pursuant to a vertical short-form amalgamation. The Company also incorporated a new direct wholly-owned subsidiary, Texas Lithium Holdings Corp. under the laws of British Columbia, and two indirect wholly-owned subsidiaries, Texas Lithium Corp. under the laws of Nevada, and 1093905 LLC under the laws of Delaware, and transferred ownership of 1093905 LLC to Texas Lithium Corp.



### Subsequent Events to June 30, 2021

On July 13, 2021, the Company commenced trading of its Shares under the ticker symbol “SLI” on the NYSE American.

On July 15, 2021, the Company announced delivery of its SiFT lithium carbonate plant to the El Dorado Arkansas project site.

On July 20, 2021, the Company appointed Dr. Volker Berl as an independent director of the Company.

On October 12, 2021, the Company announced the results of a PEA and update of the inferred mineral resource at the Southwest Arkansas Project. Additionally, the Company’s project partner TETRA, has been involved in renewal of brine leases across the Southwest Arkansas Project, where appropriate.

### Selected Financings

The Company has completed the following financings over the last three completed financial years:

On February 16, 2018, the Company closed a brokered private placement and issued 10,312,821 units of the Company (each, a “**Unit**”) at a price of \$2.10 per Unit, for gross proceeds of \$21,656,924. Each Unit consists of one Share and one-half of one Share purchase warrant (each whole warrant, a “**Unit Warrant**”). Each Unit Warrant was exercisable to acquire one Share at an exercise price of \$2.60 for a period of two years. The Company paid finder’s fees of \$2,165,692 in cash, issued 309,384 Shares and granted 721,897 compensation options which were exercisable for one Unit until February 16, 2020 at an exercise price of \$2.10.

On March 21, 2019, the Company closed a bought-deal public offering by way of short form prospectus, comprising 11,390,500 Units at a price of \$1.00 per Unit for gross proceeds of \$11,390,500. Each Unit consists of one Share and one-half of one Unit Warrant. Each Unit Warrant is exercisable to acquire one Share at an exercise price of \$1.30 per share, subject to adjustment in certain events, until March 21, 2022.

On April 15, 2019, the Company closed a private placement comprising 426,000 Units at a price of \$1.00 per Unit for gross proceeds of \$426,000. Each Unit consists of one Share and one-half of one Unit Warrant. Each Unit Warrant is exercisable to acquire one Share at an exercise price of \$1.30 per share, subject to adjustment in certain events, for a period of three years.

On October 30, 2019, the Company entered into a \$5,000,000 loan (the “**Loan**”) and guarantee agreement with LANXESS. US\$3.75 million was advanced to the Company, based on an agreed exchange rate, and will be used in the ongoing development of the Demonstration Plant in southern Arkansas, for the demonstration of the Company’s proprietary process for the extraction of lithium from brine solutions.

The principal amount of the Loan will be convertible at the option of LANXESS at a rate such that for each \$0.80 of principal converted, the Lender will receive one Common Share and one-half of



a Warrant with an exercise price of \$1.20 per Common Share and a term of three years. Assuming full conversion of the Loan principal, LANXESS would receive 6,251,250 Shares and 3,125,625 warrants to purchase Shares. All securities issued upon conversion of the Loan will be subject to four-month-and-one-day statutory hold period from the date the Loan was advanced.

The outstanding principal amount of the Loan will bear interest at an annual rate of 3.0%, subject to adjustments. In the event that the Company has a positive consolidated operating cash flow, as shown on its financial statements, the Company will pay a fee to the Lender of 4.5% per annum on the average daily outstanding principal amount of the Loan from the issuance date to the date that the consolidated operating cash flow of the Company is positive. From and after the date on which the consolidated operating cash flow of the Company is positive, the annual interest rate increases to 7.5%. Pre-payments are permitted with prior written approval of LANXESS and are subject to a prepayment fee of 3.0% on the portion of the Loan being prepaid.

The Loan is due and payable in full on the fifth anniversary, subject to the provision that at any time after second anniversary, LANXESS may elect an earlier maturity date on 60 days' notice to the Company. The Loan was secured by a charge on the shares of Moab Minerals Corp., Vernal Minerals Corp., and 2661881, as well as by a security interest in the tangible and intangible property of the Company and the Subsidiaries.

On February 20, 2020, the Company closed a non-brokered public offering by way of special warrant (each, a “**Special Warrant**”), comprising 16,140,220 Special Warrants at a price of \$0.75 per Special Warrant for gross proceeds of \$12,105,165. Each Special Warrant entitles the holder to receive, upon voluntary or deemed exercise, and without payment of additional consideration, one unit of the Company (each, a “**Conversion Unit**”). Each Conversion Unit consists of one Share and one-half of one share purchase warrant (each, a “**Unit Warrant**”). Each Unit Warrant is exercisable to acquire one Share at an exercise price of \$1.00 per Share, subject to adjustment in certain events, until February 20, 2022, subject to accelerated expiry in certain circumstances. Each Special Warrant would be deemed exercised on the date that is two business days following the earlier of: (i) the date that is four months and one day from issuance of the Special Warrants; or (ii) the date on which the Company obtains a receipt from the applicable securities regulatory authorities for a final prospectus qualifying distribution of the Conversion Units. All Special Warrants converted to Conversion Units on June 21, 2020.

On December 18, 2020, the Company closed a best efforts public offering by way of short form prospectus, comprising 15,697,500 Shares at a price of \$2.20 per Share for aggregate gross proceeds of \$34,534,500 (the “**December 2020 Public Offering**”). The Company paid aggregate cash commission of \$2,267,815.

On June 14, 2021, LANXESS elected for the early conversion in full of the Loan. The Company issued 6,251,250 Shares, and 3,125,625 share purchase warrants to LANXESS in connection with the conversion of the outstanding Loan and has retired the principal of the Loan in the amount of US\$3,750,000. Each warrant is exercisable to acquire one additional Share at a price of \$1.20 until June 10, 2024.





## DESCRIPTION OF THE BUSINESS

### Background

The Company was incorporated under the laws of the Province of British Columbia on August 14, 1998 under the name “Patriot Petroleum Corp.” At its annual general meeting held on November 3, 2016, the shareholders of the Company approved the change of name of the Company to “Standard Lithium Ltd.” and to the continuance of the Company from the *Business Corporations Act* (British Columbia) to the *Canada Business Corporations Act*.

The shareholders also approved the consolidation of the Company's Shares on the basis of one post-consolidation Share for five pre-consolidation Shares. All Share and per Share amounts in this AIF have been retroactively restated to reflect the share consolidation. The Company was formerly in the oil and gas business but changed its focus during the 2016 fiscal year. Standard is currently an innovative technology and lithium development company.

The Company's flagship project is the Arkansas Lithium Project. In addition, the Company has an interest in certain mineral leases located in the Mojave Desert in San Bernardino county, California. These projects are summarized below

### ***Arkansas Lithium Project***

The Arkansas Lithium Project consists of two main areas of interest. The first is pursuant to the TETRA 1<sup>st</sup> Option Agreement to acquire certain rights to conduct brine exploration and production and lithium extraction activities on approximately 27,262 net acres of brine leases and deeds located in Columbia and Lafayette Counties, Arkansas. The terms and conditions of the TETRA 1<sup>st</sup> Option Agreement are set forth below. The second is pursuant to the LANXESS MOU and subsequent LANXESS JV Term Sheet regarding the testing and proving of commercial viability of lithium extraction from brine that is produced as part of LANXESS' bromine extraction business at its three facilities in Union County, southern Arkansas. It is a matter of public record that LANXESS operates approximately 150,000 acres of brine leases in Southern Arkansas via three unitised areas. The terms and conditions of the LANXESS MOU and subsequent LANXESS JV Term Sheet described above in “General Development of the Business – Three Year History”.

The Company entered into an option agreement on December 29, 2017 (the “**TETRA 1<sup>st</sup> Option Agreement**”) with TETRA to acquire certain rights to conduct brine exploration and production and lithium extraction activities on approximately 27,262 brine acres located in Columbia and Lafayette Counties, Arkansas. Thereunder, the Company will be required to: pay TETRA US\$500,00 by January 28, 2018 (paid), US\$600,000 by December 29, 2018 (paid), US\$700,000 by January 31, 2020 (paid) and US\$750,000 by December 29, 2020 (paid); and pay additional annual payments of US\$1,000,000 by each annual anniversary date beginning on the date that is 48 months following the date of the TETRA 1<sup>st</sup> Option Agreement, until the earlier of the expiration of the Exploratory Period (as defined therein) or, if the Company exercises the option, the Company beginning payment of the Royalty (as defined therein). During the Lease Period (as defined therein), at any time following the commencement of Commercial Production (as defined therein), the Company agreed to pay a royalty of 2.5% (minimum royalty US\$1,000,000) to TETRA.



All of the Company's activities in southern Arkansas relate to brine leases that overlie the Smackover Formation in a region with a long history of commercial scale brine processing. Historical published brine data and current unpublished brine data from within and adjacent to the Company's area of activities lead the Company to believe that lithium-bearing brines are likely present throughout underlying the project area.

The lease area has been historically drilled for oil and gas exploration, and approximately 256 exploration and production wells have been completed in the Smackover Formation in or immediately adjacent to Company's lease area. All of these 256 wells have geological logs, and all can be used to constrain the top of the Smackover Formation brine-bearing zone. In addition, a subset of 30 wells has full core reports that provide detailed data, and downhole geophysical logs that include formation resistivity and porosity data.

On August 28, 2018, the Company announced analysis from four brine samples recovered from two existing wells in the lease area showed lithium concentrations ranging between 347–461 mg/L lithium, with an average of 450 mg/L lithium in one of the wells, and 350 mg/L in the other. The brines were sampled from preexisting oil and gas wells that had been previously drilled into the Smackover Formation, and were completed at depths of approximately 9,300 ft (2,830 m) below ground level.

On November 14, 2018, the Company announced a maiden inferred resource of 802,000 tonnes lithium carbonate equivalent ("**LCE**") at its LANXESS Property. The resource is defined across a total footprint of approximately 150,000 acres, which is comprised over 10,000 separate brine leases.

With respect to the LANXESS MOU and LANXESS JV Term Sheet, in Q1 2019 the Company undertook mini-pilot scale process work, using tail brine collected from operating facilities in Southern Arkansas. This work provided the engineering data for the design of a full-scale, continuously operated Demonstration Plant. The Company contracted Zeton Inc. ("**Zeton**") to build the Demonstration Plant. The Demonstration Plant was constructed by Zeton in three phases and the final modules of the Company's Demonstration Plant were transported to and installed at LANXESS' South Plant facility in southern Arkansas. The Demonstration Plant is based on the Company's proprietary LiSTR technology, that uses a solid sorbent material to selectively extract lithium from LANXESS' tailbrine. The Company and their contractors completed initial installation of the Demonstration Plant at LANXESS' South Plant facility in southern Arkansas. This installation was completed in mid-October 2019. During November and December 2019, a semi-permanent all-weather structure was installed to enclose the demonstration plant, and an office/control room and an analytical laboratory were also installed.

On January 28, 2019, the Corporation announced a maiden resource estimate on the South-West Arkansas Project, and on June 19, 2019, the Corporation announced the results of its preliminary economic assessment and updated Mineral Resource estimate on its LANXESS Property, and details regarding this are provided in the "Mineral Properties" section below.

On May 19, 2020, the Company announced full-time operation of the Demonstration Plant. The plant is designed to process up to 50 USGPM of brine, extract the lithium, with the aim of producing a high quality, concentrated lithium chloride intermediate product. This product can then be converted into battery quality lithium carbonate, either via conventional OEM processes, or via the proprietary SiFT technology the Company is developing. As of July 15, 2020, the





Company's SiFT pilot plant was operational and represents the next generation of lithium carbonate crystallisation, promising higher purities and more consistent product specifications; all requirements of the next generations of lithium ion batteries.

On March 1, 2021, the Company announced that it successfully completed the conversion of its Arkansas-produced lithium chloride into 99.985% pure lithium carbonate using OEM technology. The Company also announced that it commenced work to assess the feasibility of directly converting LiCl produced by the Demonstration Plant into battery quality lithium hydroxide.

On May 17, 2021, the Company commenced work on a PEA on its South-West Arkansas Project. 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.

On June 14, 2021, the Company announced that LANXESS elected for the early conversion in full of the Loan.

On July 15, 2021, the Company announced delivery of its SiFT lithium carbonate plant to the El Dorado Arkansas project site.

See also "General Development of the Business – Three Year History – Subsequent Events to June 30, 2021."

### ***California Lithium Project***

See "Mineral Properties – California Lithium Project" below for information on the California Lithium Project.

### ***Lithium Brine Processing Project***

The Company has formed a technical advisory group that is engaged in performing brine processing test and design work on bulk brine samples gathered from the Company's projects. Work has been completed on five main fronts: (i) pre-treating the Company's brines using modern filtration technologies; (ii) selectively extracting lithium from pre-treated brine(s) to produce a concentrated lithium salt solution; (iii) purifying and crystallisation of concentrated lithium solutions to produce battery-grade lithium products; (iv) de-risking the technology by designing, building and operating progressively larger pilot and pre-commercial plants; and (v) assisting in developing, refining and submitting patent applications and other intellectual property (IP) protections. The Company currently holds substantial IP and has filed full, non-provisional patent applications in several jurisdictions for its LiSTR (selective lithium extraction) technology, as well as a provisional application for its SiFT lithium carbonate crystallisation technology. This work is ongoing.

### ***Other***

The Company is continuing to review its options with respect to the current and other prospective properties.



## **Specialized Skills and Knowledge**

Successful exploration, development and operation of the Company's lithium projects will require access to personnel in a wide variety of disciplines, including geologists, geophysicists, engineers, drillers, managers, project managers, accounting, financial and administrative staff, and others. Since the project locations are also in jurisdictions familiar with and friendly to resource extraction, management believes that the Company's access to the skills and experience needed for success is sufficient.

## **Competitive Conditions**

The Company's activities are directed towards the exploration, evaluation and development of mineral deposits. There is no certainty that the expenditures to be made by the Company will result in discoveries of commercial quantities of mineral deposits. There is aggressive competition within the mining industry for the discovery and acquisition of properties considered to have commercial potential. The Company will compete with other interests, many of which have greater financial resources than it will have, for the opportunity to participate in promising projects. Significant capital investment is required to achieve commercial production from successful exploration efforts, and the Company may not be able to successfully raise funds required for any such capital investment. See "Risk Factors – Competition" below.

## **Business Cycles**

Mining is a cyclical industry and commodity prices fluctuate according to global economic trends and conditions. See "Risk Factors – Risk Related to the Cyclical Nature of the Mining Business" below.

## **Environmental Protection**

Our exploration and development activities, as applicable, are subject to various levels of federal, state and local laws and regulations relating to the protection of the environment, including requirements for closure and reclamation of mining properties.

## **Employees**

As of the date of this AIF, the Company did not have any employees and the services of CEO, CFO and President and COO were provided by contractors.

## **Reorganizations**

Except as set forth above in "*General Development of the Business – Three Year History*", there have been no corporate reorganizations within the three most recently completed financial years of the Company and there is no corporate reorganization completed during or proposed for the current financial year.



## MINERAL PROPERTIES

### **Arkansas Lithium Project**

The Arkansas Lithium Project consists of two main areas of interest: LANXESS Property and South-West Arkansas Project. Each property will be discussed below separately.

### **LANXESS Property**

Please refer to the technical report titled “Preliminary Economic Assessment of LANXESS Smackover Project” dated August 1, 2019 (the “**LANXESS PEA**”), as filed on the Company’s SEDAR profile, for detailed disclosure relating to:

- Project Description, Location and Access;
- History;
- Geological Setting, Mineralization and Deposit Types;
- Exploration;
- Drilling;
- Sample, Analysis and Data Verification;
- Mineral Processing and Metallurgical Testing;
- Mineral Resource and Mineral Reserve Estimates;
- Mining Operations;
- Processing and Recovery Methods;
- Infrastructure, Permitting and Compliance Activities;
- Capital and Operating Costs;
- Exploration, Development and Production.

The following is a summary of the LANXESS PEA, prepared by a multi-disciplinary team of Qualified Persons (“**QPs**”) that include geologists, hydrogeologists and chemical engineers with relevant experience in brine geology, brine resource modelling and estimation, and lithium-brine processing. The authors include Marek Dworzanowski, P.Eng., B.Sc. (Hons), FSAIMM, Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd. (“**APEX**”), Stanislaw Kotowski, P.Eng, M.Sc. of Worley and Dr. Ron Molnar Ph.D. P. Eng. of METNETH2O.

The LANXESS PEA is incorporated by reference herein and for full technical details, the complete text of the LANXESS PEA should be consulted.

The following summary does not purport to be a complete summary of the LANXESS Property and is subject to all the assumptions, qualifications and procedures set out in the LANXESS PEA and is qualified in its entirety with reference to the full text of the LANXESS PEA. Readers should read this summary in conjunction with the LANXESS PEA.

### **Property Location and Description**

The LANXESS Property is located south and west of the City of El Dorado in Union County, Arkansas, United States. The southern and western edges of the LANXESS Property border the State of Louisiana (LA) and Columbia County, respectively. The LANXESS Property encompasses Townships 16-19 South, and Ranges 15-18, West of the 5th Meridian (W5M). The



LANXESS Property centre is at UTM 520600 Easting, 3670000 Northing, Zone 15N, NAD83.

### **Ownership and History**

The LANXESS Property is presently owned by LANXESS, a specialty chemicals company based in Cologne, Germany. Presently, LANXESS is listed in the Dow Jones Sustainability Index and FTSE4Good Index.

LANXESS owns 100% of the brine leases and brine rights on their properties, either by an executed brine lease or by operation of law, as a result of unitization by the Arkansas Oil and Gas Commission. The land package, which is indicated on Figure 4-2 of the LANXESS PEA, consists of 150,081.81 acres that cover over 607 km<sup>2</sup>. Of the total land package, 142,881.81 acres are 'Unitized' and approximately 7,200 acres occur outside the Unit boundaries (Non-Unitized).

Each Unit (South, Central and West) has their own brine supply wells, pipeline network and bromine processing (separation) infrastructure. The facilities and their locations, which are 100% owned and operated by Great Lakes Chemical Corporation, a wholly-owned subsidiary of LANXESS, are as follows:

- South Unit (South Plant): 324 Southfield Cutoff, El Dorado, AR 71730;
- Central Unit (Central Plant): 2226 Haynesville Highway (HWY 15S), El Dorado, AR 71731; and
- West Unit (West Plant): 5821 Shuler Road, Magnolia, AR 71731.

### **Geology and Mineralization**

The authors of the LANXESS PEA reclassified the LANXESS lithium-brine ("**Li-Brine**") Resource from an Inferred Mineral Resource to an Indicated Mineral Resource in the LANXESS PEA.

The average lithium concentration used in the resource calculation is 168 mg/L lithium ("**Li**"). Resources have been estimated using a cut-off grade of 100 mg/L lithium.

The total Indicated LANXESS Li-Brine Resource for the South, Central and West brine units is estimated at 590,000 tonnes of elemental Li. The total LCE for the main resource is 3,140,000 tonnes LCE (see Table 1). With a planned level of production of 20,900 tonnes per year (tpy) of LCE, the resources will exceed the planned 25 years of operation by a significant margin. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all, or any part, of the mineral resource will be converted into a mineral reserve.

*Table 1 Indicated LANXESS Lithium-Brine Resource Estimate*

Reporting Parameter	South Unit	Central Unit	West Unit	Total (and main resource)
Aquifer volume (km <sup>3</sup> )	5.828	8.289	16.310	30.427
Brine volume (km <sup>3</sup> )	0.689	0.995	1.835	3.515
Average lithium concentration (mg/L)	168	168	168	168
Average Porosity	11.8%	12.0%	11.2%	11.6%
Total elemental Li resources (tonnes)	116,000	167,000	308,000	590,000
Total LCE (tonnes)	615,000	889,000	1,639,000	3,140,000

**Notes:**

1. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. The estimate of mineral resources may be materially affected by geology, environment, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
2. The weights are reported in tonnes (1,000 kg).
3. Numbers may not add up due to rounding of the resource values percentages (rounded to the nearest 1,000 unit).
4. In a 'confined' aquifer (as reported herein), porosity is a proxy for specific yield; especially given the number of effective porosity measurements evaluated in this report and their positive correlation with LAS log total porosity.
5. The grey-shaded 'Total' volume and weights are estimated at volume-weighted average porosities of the block-model (i.e. calculated by using the porosity of the brine units and their respective unit areas). It is assumed that all pore space is occupied by brine.
6. The LANXESS estimation was completed and reported using a cutoff of 100 mg/L Li.
7. To describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to lithium carbonate, or Lithium Carbonate Equivalent (LCE).

## Recovery Method and Mineral Processing

The Company's objective is to produce battery-grade lithium carbonate from the tail-brine that exits the LANXESS bromine extraction operations. There are three (3) bromine extraction operations that will be used for lithium extraction (South, Central and West). Each facility will have its own primary lithium chloride extraction plant, which will produce purified and concentrated lithium chloride solutions. These solutions will be conveyed, via pipelines, to one location (Central Plant) for further processing to the final product - lithium carbonate. The total lithium carbonate production is 20,900 tpy. The final product lithium recovery is about 90%.

The production process parameters are supported by bench scale metallurgical testing and mini-pilot plant testing program results. Readers are cautioned that statements relating to the production process and recovery are based on using a processing technology that has not yet been commercially proven and there is a risk that actual results, performance, prospects and opportunities could differ materially from those expressed or implied by such forward-looking information.



## **Mineral Processing and Metallurgical Testing**

The Company is continuing the development of a processing route to produce battery-quality lithium chemicals from brine at the Company's LANXESS Property. The immediate goal of the past and ongoing work is to define the process and engineering parameters required to design and operate a demonstration-scale integrated plant at the LANXESS Property. The objective of the Demonstration Plant is to further confirm the operating conditions and design criteria for the full-scale commercial plant, which will be operated at the same site using the same tail-brine feed. It will also enable the examination of some processing options and the optimization of key processing parameters.

### *Lithium Extraction Mini-Pilot Testing*

The bench-scale lithium extraction process equipment, as discussed in the LANXESS PEA, was scaled up by a suitable scaling factor, and was reconstructed at SGS Canada Inc's Lakefield Ontario laboratory. The principal purpose of the mini-pilot plant work was to better understand the continuous solid/liquid handling aspects of the process in order to complete the design of the Demonstration Plant. The brine was used in the mini-pilot plant at ambient temperature, without any prior filtration or pre-treatment. The mini-pilot plant campaign operated during March 2019, and ran continuously for three weeks, 299 hours on a 24/5 basis, with only short stoppages to address mechanical issues and to change operating conditions. For the first two weeks, one sorbent sample was used and it circulated through the plant circuit from loading to elution and back again. This sorbent was replaced with a second sample that was tested in the third campaign week. The continuous circuit operated at a feed brine flowrate of 240 L per hour. This would have required a very large volume of brine to be transported and then disposed of; therefore, initially, lithium chloride, via a master solution, was added to the produced barren brine, which was then recirculated to the loading reactor. For the final shifts in the campaign, fresh feed brine was processed on a once-through basis, as would be the case in the on-site operations. Both sodium hydroxide and aqueous ammonia were successfully tested as pH control reagents. An upgraded and purified lithium chloride solution was produced and ultimately used in the development of the novel crystallization technology known as SiFT.

### *Lithium Chloride Conversion Testing*

The concentrated lithium chloride solution, from the stripping stage, undergoes removal of residual hardness (low levels of residual alkali and alkaline earth metals) using industry standard purification methods to produce a high-purity lithium chloride solution. The purified lithium chloride solution produced by polishing is suitable for application of the industry-standard carbonation process. Typically, this involves adding soda-ash (sodium carbonate) to the lithium chloride solution. Heating reduces the solubility of the precipitated lithium carbonate, which is subsequently removed by filtration. The lithium carbonate is further purified through several stages, including further carbonation, bicarbonation and hot washing, followed by sizing, drying and packing, to produce a saleable lithium carbonate product meeting the offtake partner's specifications. These final product preparation steps are analogous to those currently used in operating lithium brine projects and are typically carried out using equipment and processes provided by Vendors/OEMs familiar with the application.



The batch crystallization and purification process was developed by the lithium industry in the 1960s, and was designed for end-uses that did not require very high purities. The global growth in use of lithium chemicals is based predominantly on the adoption of lithium ion batteries, and these end-uses typically have more exacting purity targets.

In order to assess whether alternative crystallization techniques may be helpful in reaching higher levels of purity, the Company is also in the process of examining an alternative precipitation technology with fewer purification steps. As previously announced, the Company has been involved in testing a novel continuous crystallization process. This work has been completed in collaboration with researchers from the University of British Columbia (“**UBC**”), specifically Professor Jason Hein. This new process, which has been dubbed ‘SiFT’, has the advantage over the conventional purification route that it can start off with a contaminated (with elements like calcium and magnesium) lithium chloride solution and produce high grade lithium carbonate in fewer process steps and with reduced chemical requirements.

### *Conclusions*

The purpose of the continuously-operating Demonstration Plant will be to establish process robustness and to evaluate long-term sorbent life, while further optimizing operating conditions. Most of the design parameters for the Demonstration Plant have been developed from the bench and mini-pilot plant testing and the Demonstration Plant will further define the design parameters and expected capital and operating costs for the commercial operation.

## **Capital and Operating Cost Estimate**

### *CAPEX*

Capital expenditures (“**CAPEX**”) are based on an operating capacity of 20,900 tpy of battery grade lithium carbonate. Capital equipment costs have been obtained from in-house data and solicited budget price information. The estimate is compliant to the AACE International Class 5 standard (see Table 2). The accuracy of this estimate is expected to be within a -30%/+50% range.

The production process parameters are supported by bench scale metallurgical testing and mini-pilot plant testing program results.



Table 2 CAPEX Summary

Stage of Development	Description	Cost (US\$)
Phase 1	South Lithium Chloride Plant	106,886,000
	Central Lithium Carbonate Plant – Train № 1	27,711,000
	Pipelines	2,340,000
	Contingency 25%	34,234,000
	Phase 1 Subtotal	171,171,000
Phase 2	West Lithium Chloride Plant	99,393,000
	Central Lithium Carbonate Plant – Train № 2	25,769,000
	Pipelines	3,780,000
	Contingency 25%	32,236,000
	Phase 2 Subtotal	161,178,000
Phase 3	Central Lithium Chloride Plant	66,589,000
	Central Lithium Carbonate Plant – Train № 3	17,261,000
	Contingency 25%	20,963,000
	Phase 3 Subtotal	104,813,000
CAPEX TOTAL		437,162,000

## OPEX

Operating expenditures (“OPEX”) are based on a phased development with an increasing lithium carbonate production capacity: Phase 1: 9,700 tpy, Phase 2: 8,200 tpy, Phase 3: 3,000 tpy. The OPEX summary (rounded to ‘000) is presented in Table 3.

*Table 3 Annual Operating Cost Summary*

Description	Phase 1 US\$	Phase 2 US\$	Phase 3 US\$
<b>Direct Operational Expenditures</b>			
Manpower	3,745,000	5,680,000	6,710,000
Electrical Power	4,040,000	7,306,000	9,097,000
Reagents & Consumables	30,138,000	55,615,000	64,936,000
Water	496,000	916,000	1,070,000
Natural Gas	582,000	1,074,000	1,254,000
Miscellaneous Direct Expenditures	605,000	1,098,000	1,299,000
Sustaining Capital Cost	1,199,000	2,314,000	3,061,000
Brine Transportation	48,000	123,000	123,000
Land lease	100,000	200,000	300,000
<b>Subtotal</b>	<b>40,953,000</b>	<b>74,326,000</b>	<b>87,849,000</b>
<b>Indirect Operational Expenditures</b>	1,009,000	1,901,000	2,410,000
<b>TOTAL</b>	<b>41,962,000</b>	<b>76,227,000</b>	<b>90,259,000</b>

Note: OPEX per one metric tonne of production is US\$4,319.

## Economic Analysis

The project economics assumed a three-year rolling average price of US\$13,550/t for the lithium carbonate product. The results for IRR and NPV from the assumed CAPEX, OPEX and price scenario at full production, are presented in Table 4.

*Table 4 Economic Evaluation - Case 1 (Base Case) Summary*

Overview	Units	Values	Comments
Production	tpy	20,900	At completion of Phase 3 production
Plant Operation	years	25	From the start of Phase 1 production
Capital Cost (CAPEX)	US\$	437,162,000	
Annual Operating Cost (OPEX)	US\$	90,259,000	
Average Selling Price	US\$/t	13,550	
Annual Revenue	US\$	283,195,000	
Discount Rate	%	8	
Net Present Value (NPV) Post-Tax	US\$	989,432,000	
Net Present Value (NPV) Pre-Tax	US\$	1,304,766,000	
Internal Rate of Return (IRR) Post-Tax	%	36.0	
Internal Rate of Return (IRR) Pre-Tax %	%	41.8	

### *Post-Tax Sensitivity Analysis*

The sensitivity analysis at discount rate of 8% indicates that the project is economically viable under the base case conditions where the NPV and IRR are very positive.

- Project economics are sensitive to the variations in the product selling price. A change in the selling price by +/- 20% changes the value of net present value ("**NPV**") by +/- 43% and value of IRR by +/- 32%.
- The project is moderately sensitive to variations in the OPEX. A change in the OPEX by +/- 20% changes the value of NPV by +/- 14% and value of internal rate of return ("**IRR**") by +/-10%.
- The project economics are relatively insensitive to the increase or decrease of CAPEX. A change in the CAPEX by +/- 20% changes the value of NPV by +/- 1% and value of IRR of less than +/- 1%.
- The cost of reagents is approximately 72% of the OPEX. The remaining components of the operating cost have significantly lower impact on the overall economics.

## Conclusions and Recommendations

### *Key Study Conclusions*

- The total Indicated LANXESS Li-Brine Resource is estimated at 3,140,000 tonnes of LCE. The volume of resources will allow the lithium bearing brine extraction operations to continue well beyond the currently assumed 25 years.
- The results of the geological evaluation and resource estimates for the preliminary economic assessment of the LANXESS Property justifies development of the project to further evaluate the feasibility of production of lithium carbonate.
- The experience gained from the long-term operations of the brine extraction and processing facilities on the LANXESS controlled properties decreases the risk related to sustainability of the brine extraction from the LANXESS Property.
- The well-developed infrastructure and availability of a qualified work force will decrease the risks related to construction, and commissioning and operating of the lithium extraction and lithium carbonate processing plants.
- The results of the bench scale testing and mini-plant process testing program increase the level of confidence in the key parameters for the operating cost estimate.
- Improvements made to process efficiency, particularly the reduction of reagents and chemicals consumption, will improve the economics of the project.
- The discounted cash flow economic analysis, at a discount rate of 8%, indicates that the Project is economically viable under the base case conditions. The key economic indicators, NPV = US\$989,432,000 (post-tax) and IRR = 36% (post-tax), are very positive.

### **Key Study Recommendations**

- The LANXESS Li-brine mineral resource estimate should be upgraded from the current classification of “Indicated” to “Measured”, as classified according to CIM (2014) definition standards.
- The sampling and testing program should be continued to allow for the most updated calculation of the lithium concentration to be used in the mineral resource estimate calculation.
- The testing program should address the opportunities to reduce the usage of reagents for production of lithium chloride to lower the operating cost.
- The large Demonstration Plant scheduled for deployment in late-2019 at LANXESS’ South Plant facility in southern Arkansas should be used to collect as much data as possible to inform the next phases of study.
- Complete an evaluation of the SiFT process to produce battery quality lithium carbonate vs. the traditional OEM process used in this PEA.
- On completion of the PEA, the project should progress to a NI 43-101 compliant pre-feasibility study (“**PFS**”).



### **South-West Arkansas Project (formerly known as the TETRA Property)**

Please refer to the technical report titled “Amended Geological Introduction and Maiden Inferred Resource Estimate for Standard Lithium Ltd.’s Tetra Smackover Lithium-Brine Property in Arkansas, United States” dated February 28, 2019 (the “**South-West Arkansas Resource Report**”), as filed on the Company’s SEDAR profile, for detailed disclosure relating to:

- Project Description, Location and Access;
- History;
- Geological Setting, Mineralization and Deposit Types;
- Exploration;
- Drilling;
- Sample, Analysis and Data Verification;
- Mineral Processing and Metallurgical Testing;
- Mineral Resource and Mineral Reserve Estimates;
- Mining Operations;
- Processing and Recovery Methods;
- Infrastructure, Permitting and Compliance Activities;
- Capital and Operating Costs;
- Exploration, Development and Production.

The following is a summary of the South-West Arkansas Resource Report, prepared by a multi-disciplinary team of QPs that include geologists, hydrogeologists and chemical engineers with relevant experience in brine geology, brine resource modelling and estimation, and lithium-brine processing. The authors include Mr. Roy Eccles M.Sc. P. Geol. of APEX, Dr. Ron Molnar Ph.D. P. Eng. of METNETH<sub>2</sub>O Inc. and Mr. Kaush Rakhit M.Sc. P. Geol. of Canadian Discovery Ltd. While the authors take ownership of their respective report sections, Mr. Eccles supervised and takes overall responsibility for the South-West Arkansas Resource Report and the maiden mineral resource estimate.

The South-West Arkansas Resource Report is incorporated by reference herein and for full technical details, the complete text of the South-West Arkansas Resource Report should be consulted.

The following summary does not purport to be a complete summary of the South-West Arkansas Project and is subject to all the assumptions, qualifications and procedures set out in the South-West Arkansas Resource Report and is qualified in its entirety with reference to the full text of the South-West Arkansas Resource Report.

### **Property Location and Description**

The centre of South-West Arkansas Project is located approximately 24 km (15 miles) west of the City of Magnolia in Lafayette County, south western Arkansas, United States. The Property encompasses Townships 16-17 South and Ranges 22-24 West of the 5<sup>th</sup> Meridian and lies wholly within Lafayette and Columbia Counties.

## Ownership and History

In 1992, TETRA started acquiring the brine leases and deeds. The South-West Arkansas Project is comprised of 489 land tracts containing 802 individual leases and eight salt water (brine) deeds that covers 11,033 net mineral hectares (27,262 net mineral acres). The leases and deeds are held by TETRA. The percentage of brine rights ownership varies from section to section and has been accounted for in the mineral resource estimate.

## Geology and Mineralization

The South-West Arkansas Project lithium brine Inferred Resource, as reported, is contained within the Upper and Middle facies of the Smackover Formation, a Late Jurassic oolitic limestone aquifer system that underlies the entire South-West Arkansas Project .

The resource estimate of the lithium brine at the South-West Arkansas Project is classified as an “Inferred” Mineral Resource and was developed and classified in accordance with guidelines established by the Canadian Institute of Mining and Metallurgy. The total Inferred mineral resource at the Property is estimated at 151,000 tonnes of elemental Li. The total LCE for the South-West Arkansas Project resource is 802,000 tonnes LCE (Table 5). Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all, or any part, of the mineral resource will be converted into a mineral reserve.

*Table 5 South-West Arkansas Lithium Brine Project Inferred Resource Statement*

	Upper Smackover Form.		Middle Smackover Formation		Total (and main resource)
Parameter	South Resource Area	North Resource Area	South Resource Area	North Resource Area	
Aquifer Volume (km <sup>3</sup> )	2.49	3.65	0.60	0.93	7.66
Brine Volume (km <sup>3</sup> )	0.25	0.36	0.06	0.09	0.76
Average lithium concentration (mg/L)	399	160	399	160	199
Average Porosity	10.1 %	10.1 %	10.3 %	10.3 %	10.1 %
Total Li resource (as metal) metric tonnes (see notes [4] & [5] below)	78,000	44,000	18,000	11,000	151,000
Total LCE resource (metric tonnes) (see notes [4] & [5] below)	413,000	233,000	98,000	59,000	<b>802,000</b>

### Notes:

1. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve.
2. Numbers may not add up due to rounding.
3. The resource estimate was completed and reported using a cut-off of 50 mg/L lithium.
4. The resource estimate was developed and classified in accordance with guidelines established by the Canadian Institute of Mining and Metallurgy. The associated South-West Arkansas Resource Report was completed in accordance with the Canadian Securities Administration's NI 43-101 and all associated documents and amendments. As per these guidelines, the resource was estimated in terms of metallic (or elemental) lithium.
5. In order to describe the resource in terms of 'industry standard' lithium carbonate equivalent, a conversion factor of 5.323 was used to convert elemental lithium to LCE.



A Future Target for Exploration (“FTE”) was also developed which considered the additional resource which may be present if the lease areas were ‘filled-in’ and the total footprint of the South-West Arkansas Project were unitised as a brine-production unit in the future; this FTE considered that an additional 86,000 to 160,000 tonnes LCE may be present under the total Project footprint if unitisation were applied for and approved. The potential quantity and grade of the FTE is conceptual in nature. It is uncertain if Standard Lithium will acquire the leases being delineated as a future target of exploration and it is uncertain if a mineral resource estimate including the leases in question will ever be delineated.

### **Key Study Recommendations**

- Collect additional brine samples from the Upper and Middle Smackover formations either from existing wells on the South-West Arkansas Project or recompleting existing/abandoned wells or install a well.
- Analyse available Smackover Formation core at several locations from the Arkansas Geological Survey at 0.3 m intervals throughout the Upper and Middle Smackover formations to assess porosity and permeability.
- Continue with ongoing mineral processing test work and development of a rapid extraction technology.

See also “General Development of the Business – Three Year History – Subsequent Events to June 30, 2021.”

### **California Lithium Project**

Please refer to the technical report titled “Technical Report on the Mojave Lithium Property, San Bernardino County, California, USA” dated September 13, 2016 with an effective date of September 13, 2016 (the “**California Technical Report**”), as filed on the Company’s SEDAR profile, for detailed disclosure relating to:

- Project Description and Location;
- Accessibility;
- History;
- Geological Setting and Mineralization;
- Deposit Types;
- Exploration;
- Drilling;
- Sample Preparation, Analyses and Security; and
- Data Verification.

The following is a summary of the California Technical Report prepared by William Feyerabend, a “qualified person” and “independent” as such terms are defined in NI 43-101 and is subject to any updated information contained elsewhere in this AIF. The California Technical Report is incorporated by reference herein and for full technical details, reference should be made to the complete text of the California Technical Report. Note that the California Technical Report was based on an assessment of only the approximately 4,000 acres of BDL claims that the Company used to gain an initial position in the Bristol Dry Lake area. Several commercial transactions were completed subsequent to this initial California Technical Report, and therefore information



gathered as part of those transactions could not be incorporated into the initial California Technical Report.

The following summary does not purport to be and is not a complete summary of the California Lithium Project and is subject to all the assumptions, qualifications and procedures set out in the California Technical Report and is qualified in its entirety with reference to the full text of the California Technical Report. Readers should read this summary in conjunction with the California Technical Report.

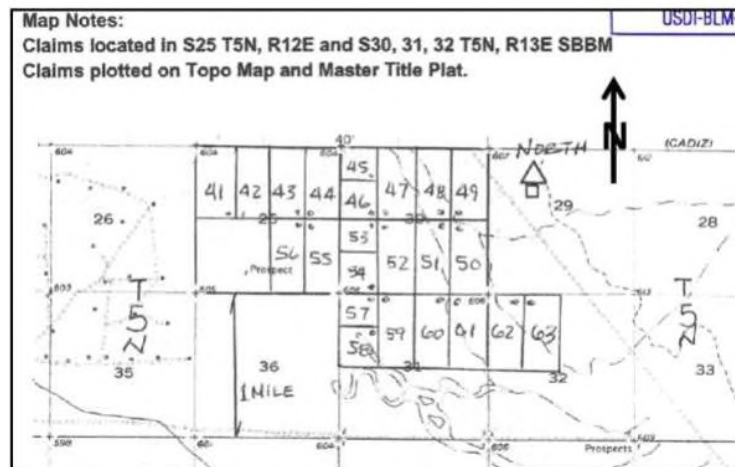
### Project Description, Location and Access

The California Lithium Property is located in San Bernardino County, California (Figure 1) approximately 150 miles east-northeast of Los Angeles and next to Amboy, a populated place which used to be a popular stop on Highway 66 before it was bypassed by Interstate 40. The nearest commercial centers via I40 are at Barstow 80 miles west and Needles 75 miles east.

Figure 1: Location Map



The California Lithium Property's 55 (fifty five) unpatented placer mining claims are located in Sections 3 and 4, T. 4 N., R. 13 E.; Sections 4, 8, 9, 10, 17 and 25, T. 5 N., R. 12 E., and Sections 30, 31 and 32, T. 5 N., R. 13 E., SBBM. The central claim latitude/longitude coordinates are approximately N34°51', W115°71'. The claims are located on Bristol Dry Lake adjacent to Amboy, California.





The claims cover a total of approximately 4,020 acres on Federal land.

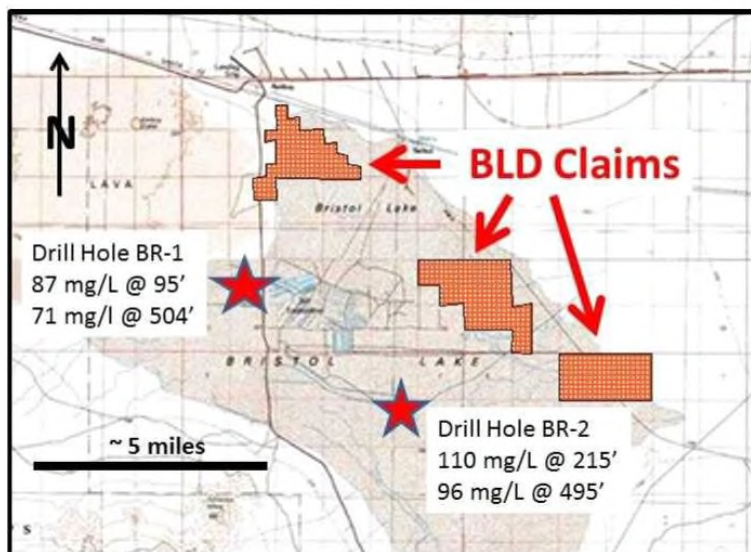
Claim	Acres	Township	Range	Section		Claim	Acres	Township	Range	Section
BLD-1	82	4 N	13 E	4		BLD-53	43	5 N	13 E	30
BLD-2	83	4 N	13 E	4		BLD-54	43	5 N	13 E	30
BLD-3	83	4 N	13 E	3		BLD-55	80	5 N	12 E	25
BLD-4	82	4 N	13 E	3		BLD-56	80	5 N	12 E	25
BLD-5	80	4 N	13 E	3		BLD-57	44	5 N	13 E	31
BLD-6	80	4 N	13 E	3		BLD-58	44	5 N	13 E	31
BLD-7	80	4 N	13 E	4		BLD-59	80	5 N	13 E	31
BLD-8	80	4 N	13 E	4		BLD-60	80	5 N	13 E	31
BLD-9	80	4 N	13 E	3		BLD-61	80	5 N	13 E	31
BLD-10	80	4 N	13 E	3		BLD-62	80	5 N	13 E	32
BLD-11	80	4 N	13 E	3		BLD-63	80	5 N	13 E	32
BLD-12	80	4 N	13 E	3		BLD-64	80	5 N	12 E	4
BLD-13	80	4 N	13 E	4		BLD-65	40	5 N	12 E	4
BLD-14	80	4 N	13 E	4		BLD-66	40	5 N	12 E	8
BLD-15	80	4 N	13 E	4		BLD-67	80	5 N	12 E	9
BLD-16	80	4 N	13 E	4		BLD-68	80	5 N	12 E	9
BLD-41	80	5 N	12 E	25		BLD-69	80	5 N	12 E	9
BLD-42	80	5 N	12 E	25		BLD-70	80	5 N	12 E	9
BLD-43	80	5 N	12 E	25		BLD-71	60	5 N	12 E	10
BLD-44	80	5 N	12 E	25		BLD-72	30	5 N	12 E	10
BLD-45	43	5 N	13 E	30		BLD-73	80	5 N	12 E	10
BLD-46	43	5 N	13 E	30		BLD-74	80	5 N	12 E	10
BLD-47	80	5 N	13 E	30		BLD-75	80	5 N	12 E	9
BLD-48	80	5 N	13 E	30		BLD-76	80	5 N	12 E	9
BLD-49	80	5 N	13 E	30		BLD-77	80	5 N	12 E	9
BLD-50	80	5 N	13 E	30		BLD-78	80	5 N	12 E	9
BLD-51	80	5 N	13 E	30		BLD-79	60	5 N	12 E	8
BLD-52	80	5 N	13 E	30						

The BLD claims are located on Federal lands controlled by the Bureau of Land Management. As public lands, there is free right of access within the restrictions of special land designations. Both surface and mineral rights are held by the Federal government.

## History and Geologic Setting

Salt production from Bristol Lake has a long history. There has been some drilling on the playa as part of academic and assessment programs. Most data acquisition was directed to sedimentology and water saline chemistry, but there are four historical lithium analyses cited in Calzia (1991) from two USGS drill holes (Figure 2). Lithium ranges cited by Garrett (2004) are slightly different 68 to 104 ppm Li.

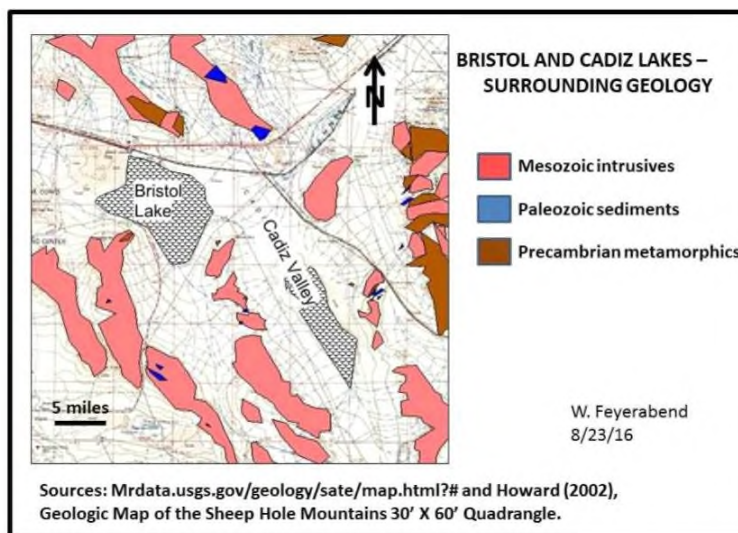
Figure 2: Historic Drill Holes and Lithium Analyses



At the time of drilling, those ranges of lithium concentrations were of academic interest. While the lithium concentrations of 71 – 110 mg/L are now of interest, the methods of sampling and analyses are not known, so the results are historical only.

Two core holes, Bristol 1 (“**BR-1**”) and Bristol 2 (“**BR-2**”), were drilled in 1953 as part of the U. S. Geological Survey program to study saline deposits in the Mojave Desert. Detailed logging (Bassett et al, 1959) logged dense clays alternating with salt beds. There were seven salt beds greater than five feet thick. The principal production bed is 8 feet deep and the next salt bed is at 153 feet. The clays are commonly silty or sandy and there is a one-inch white volcanic crystal tuff at 720 feet, again showing some volcanic activity as the basin developed. Bristol Lake salt brines were used for drilling and there were no analyses of fluids in that program.





## Commercial Agreements

The Company's acquired its interests in the overall land package through a series of agreements, summarized below.

- On July 7, 2016, the Company entered into an option purchase and assignment agreement (the "**Option Purchase Agreement**") with TY & Sons Explorations (Nevada), Inc. ("**TY & Sons**") and Nevada Alaska Mining Company Inc. ("**Nevada Mining**"), to acquire all of TY & Sons' right to acquire from Nevada Mining certain mineral claims situated in San Bernardino County, California. As consideration, the Company issued 14,000,000 Shares and paid certain costs incurred to TY & Sons. The Company was also required to: pay Nevada Alaska US\$125,000 by November 30, 2016 (paid) and a further US\$50,000 by each of July 7, 2017 (paid), July 7, 2018 (paid), July 7, 2019 (paid) and July 7, 2020 (paid); and to issue 100,000 Shares (issued) by November 24, 2017, 500,000 Shares by November 30, 2016 (issued) and a further 500,000 Shares by each of October 1, 2017 (issued), October 1, 2018 (issued), October 1, 2019 (issued) and October 1, 2020 (issued). The property is subject to a 2.5% net smelter return royalty on commercial production from the mineral claims, in favour of Nevada Mining, of which 1.0% could have been repurchased for US\$1,000,000 on or before July 7, 2019. The property is also subject to an additional 0.5% net smelter returns royalty applicable to any after acquired properties in the area of interest stipulated by the Option Purchase Agreement, also in favour of Nevada Mining.
- On May 1, 2017, the Company signed a property lease agreement (the "**Property Lease Agreement**") with National Chloride Company of America ("**National Chloride**") for rights to the adjacent approximate 12,290 acres. Under the Property Lease Agreement, the Company is required to: pay US\$25,000 (paid) at signing of a letter of intent, US\$25,000 (paid) on May 1, 2017, US\$50,000 by November 24, 2017 and a further US\$100,000 by each of May 24, 2018 (paid), May 24, 2019 (paid), May 24, 2020 (paid), May 24, 2021 (paid) and May 24, 2022; issue 200,000 Shares by each of May 24, 2018 (issued), May 24, 2019 (issued), May 24, 2020 (issued), May 24, 2021 (issued) and May



24, 2022; pay US\$250,000 and issue of 500,000 Shares upon successful completion of a pre-feasibility study; and pay US\$1,000,000 upon the successful completion of a bankable feasibility study. It is expressly agreed that the “Leased Rights” are limited to lithium exploration and production activities and operations. The Company will pay a two percent royalty on gross revenue derived from the properties to National Chloride, subject to a minimum annual royalty payment of US\$500,000. On September 1, 2017, the Property Lease Agreement was amended to include an additional approximately 6,000 acres adjacent to the 12,290 acres, in respect of which the Company will be responsible for ongoing carrying costs.

- Under the TETRA 2<sup>nd</sup> Option Agreement entered into on May 2, 2018, in order to acquire the right to conduct lithium exploration activities on the properties located in Bristol Dry Lake and Cadiz Dry Lake, the Company is required to: pay to TETRA US\$100,000 on April 23, 2018 (paid), US\$100,000 by October 23, 2018 (paid), and a further \$200,000 by each of May 2, 2019 (paid), May 2, 2020 (paid), May 2, 2021 (paid), May 2, 2022, and May 2, 2023; issue 200,000 Shares on April 23, 2018 (issued), 200,000 Shares by October 23, 2018 (issued), and 400,000 Shares by each of May 2, 2019 (issued), May 2, 2020 (issued), May 2, 2021 (issued), May 2, 2022 and May 2, 2023; pay US\$500,000 and issue 1,000,000 Shares upon successful completion of a pre-feasibility study; and pay US\$1,000,000 upon the successful completion of a bankable feasibility study.

### **Subsequent Exploration, Development, and Production**

Following the initial California Technical Report for the California Lithium Project (brief summary provided above), and subsequent to the various transactions that allowed the Company to access and explore most parts of the Bristol Dry Lake Playa (see “Commercial Agreements” for descriptions of the various commercial agreements established for the overall property), the Company has completed several phases of exploration and process testing work. These have consisted of the following:

- Gravity geophysical surveys of both Bristol Dry Lake and Cadiz Dry Lake (see news releases filed on Company’s SEDAR profile dated June 05, 2017 and April 19, 2018). These surveys have highlighted the presence of two deep, infilled basins at the two project sites. At Bristol Dry Lake, the survey showed that the basin was up to two times deeper than previously understood, with a maximum depth of up to 1.2 km beneath the Project area. At Cadiz Dry Lake, the survey showed a maximum depth of just over 0.7 km beneath the Project area.
- CSAMT/MT geophysical surveys of Bristol Dry Lake (see news release filed on Company’s SEDAR profile dated August 08, 2017). This survey highlighted the presence of extensive low resistivity zones beneath the Bristol Dry Lake Project, suggesting that lithium brines are present beneath almost all of Standard’s claims. In addition, the survey showed extremely low resistivity values (less than 1 ohm-metre), likely correlating with high concentration brines, and also that brines extend south and eastwards across the basin, into areas that are not currently used for brine harvesting activities.



- Excavation of surface pits across the property with a backhoe, combined with initial evaporation pond work (see news release filed on Company's SEDAR profile dated October 10, 2017 and December 11, 2017). Initial grab sampling of very shallow (1.5 to 6 m depth) brines across the property showed an average lithium concentration of 146 mg/L. These brines were pumped into shallow, plastic-lined ponds, were concentrated via passive solar evaporation for a period of four weeks, and yielded final brines with an average lithium concentration of 686 mg/L.
- Sampling of production wells from Cadiz Dry Lake (see news release filed on Company's SEDAR profile dated October 30, 2017). Grab samples taken from active brine production wells on the Cadiz Dry Lake Project yielded lithium concentrations between 112 to 139 mg/L.
- Initial sampling and exploratory drilling work at Bristol Dry Lake and Cadiz Dry Lake (see news release filed on Company's SEDAR profile dated December 11, 2017 and June 20, 2018). Four exploration boreholes were drilled at Bristol Dry Lake in Q4 of 2017, and reached a maximum depth of 1,195 ft (364 m). Two additional exploratory boreholes were drilled at Bristol in the first half of 2018 (making six in total), and a seventh well was commenced and then subsequently completed in such a manner that it can be re-entered easily.
- Numerous brine samples have been collected across the two properties, and elevated lithium concentrations have been noted in all samples collected from exploration boreholes in Bristol Dry Lake, and from production wells in Cadiz Dry Lake. These data have not been published to date but will be released in a technical report for the Property(ies) in the future. Lithium concentrations are consistent with historical data (see Feyerabend 2016 report) and with grab samples as described above. Additional rounds of evaporation pond process testing work have also been completed and these are similarly consistent with the initial data as described above.

## **RISK FACTORS**

There are a number of risks that may have a material and adverse impact on the future operating and financial performance of the Company and could cause the Company's operating and financial performance to differ materially from the estimates described in forward-looking statements relating to the Company. These include widespread risks associated with any form of business and specific risks associated with the Company's business and its involvement in the lithium exploration and development industry.

This section describes risk factors identified as being potentially significant to the Company and its material properties, the Arkansas Lithium Project and the California Lithium Project. Additional risk factors may be included in the LANXESS PEA, the Arkansas South-West Resource Report and the California Technical Report or other documents previously disclosed by the Company. In addition, other risks and uncertainties not discussed to date or not known to management could have material and adverse effects on the valuation of our securities, existing business activities, financial condition, results of operations, plans and prospects.





### **Reliance on Key Personnel**

The senior officers of the Company are critical to its success. In the event of the departure of a senior officer, the Company believes that it will be successful in attracting and retaining qualified successors, but there can be no assurance of such success. Recruiting qualified personnel as the Company grows is critical to its success. The number of persons skilled in the acquisition, exploration and development of mining properties is limited, and competition for such persons is intense. As the Company's business activity grows, it will require additional key financial, administrative, engineering, geological and other personnel. If the Company is not successful in attracting and training qualified personnel, the efficiency of its operations could be affected, which could have an adverse impact on future cash flows, earnings, results of operations and the financial condition of the Company. The Company is particularly at risk at this state of its development as it relies on a small management team, the loss of any member of which could cause severe adverse consequences.

### **Substantial Capital Requirements and Liquidity**

At March 31, 2021, the Company had a cash balance of approximately \$30,264,027, a working capital surplus of approximately \$29,253,591 and current obligations of approximately \$1,501,468. As at June 30, 2021, the Company had a cash balance of approximately \$27,988,471, a working capital surplus of approximately \$25,969,236 and current obligations of \$2,408,302.

The Company anticipates that it will incur substantial capital expenditures for the continued exploration and development of its projects in the future. The Company currently has no revenue and may have limited ability to undertake or complete future drilling or exploration programs and process studies. There can be no assurance that debt or equity financing, or cash generated by operations will be available or sufficient to meet these requirements or for other corporate purposes or, if debt or equity financing is available, that it will be on terms acceptable to the Company. Moreover, future activities may require the Company to alter its capitalization significantly.

The inability of the Company to access sufficient capital for its operations could have a material adverse effect on the Company's financial condition, results of operations or prospects. Sales of substantial amounts of securities may have a highly dilutive effect on the ownership or share structure of the Company. Sales of a large number of Shares in the public markets, or the potential for such sales, could decrease the trading price of the Shares and could impair the Company's ability to raise capital through future sales of Shares.

The Company has not yet commenced commercial production at any of its properties and as such, it has not generated positive cash flows to date and has no reasonable prospects of doing so unless successful commercial production can be achieved at the Company's projects. The Company expects to continue to incur negative investing and operating cash flows until such time as it enters into commercial production. This will require the Company to deploy its working capital to fund such negative cash flow and to seek additional sources of financing.

Historically, capital requirements have been primarily funded through the sale of Shares. Factors that could affect the availability of financing include the progress and results of ongoing exploration at the Company's mineral properties, the state of international debt and equity markets



and investor perceptions and expectations of the global market for lithium and its derivatives. There is no assurance that any such financing sources will be available or sufficient to meet the Company's requirements. There is no assurance that the Company will be able to continue to raise equity capital or that the Company will not continue to incur losses.

### **Development of the Arkansas Lithium Project**

The Company's business strategy depends in large part on developing the Arkansas Lithium Project into a commercially viable mine. Whether a mineral deposit will be commercially viable depends on numerous factors, including: (i) the particular attributes of the deposit, such as size, grade and proximity to infrastructure; (ii) commodity prices, which are highly volatile; and (iii) government regulations, including regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of Mineral Resources and Mineral Reserves, environmental protection and capital and operating cost requirements. The capital expenditures and time required to develop the three phases of the Arkansas Lithium Project are significant and the Company has not yet secured funding that it believes will be sufficient to cover its share of capital expenditure obligations for the first stage of development of the Arkansas Lithium Project. Accordingly, there can be no assurance that the Company will ever develop this project. If the Company is unable to develop all or any of its projects into a commercial operating mine, its business and financial condition will be materially adversely affected.

### **Property Commitments**

The Company's mining properties may be subject to various land payments, royalties and/or work commitments. Failure by the Company to meet its payment obligations or otherwise fulfill its commitments under these agreements could result in the loss of related property interests.

### **Title**

The acquisition of title to resource properties is a detailed and time-consuming process. The Company may acquire an interest in its properties through land use permits. Title to, and the area of, the properties may be disputed. There is no guarantee that such title will not be challenged or impaired. There may be challenges to the title of the property in which the Company may have an interest, including concessions which, if successful, could result in the loss or reduction of the Company's interest in the property.

Although the Company has taken steps to verify the title to the resource properties in which it has or has a right to acquire an interest in accordance with industry standards for the current stage of exploration and development of such properties, these procedures do not guarantee title (whether of the Company or of any underlying vendor(s) from whom the Company may be acquiring its interest).

### **Exploration and Development**

Exploring and developing natural resource projects bears a high potential for all manner of risks. Additionally, few exploration projects successfully achieve development due to factors that cannot be predicted or foreseen. Moreover, even one such factor may result in the economic viability of a project being detrimentally impacted, such that it is neither feasible nor practical to proceed. Natural resource exploration involves many risks, which even a combination of experience,



knowledge and careful evaluation may not be able to overcome. Operations in which the Company has a direct or indirect interest will be subject to all the hazards and risks normally incidental to exploration, development and production of natural resources, any of which could result in work stoppages, damage to property, and possible environmental damage. If any of the Company's exploration programs are successful, there is a degree of uncertainty attributable to the calculation of resources and corresponding grades and in the analysis of the economic viability of future mine development and mineral extraction. Until actually extracted and processed, the quantity of lithium reserves and grade must be considered as estimates only. In addition, the quantity of reserves and resources may vary depending on commodity prices and various technical and economic assumptions. Any material change in quantity of reserves, grade or recovery ratio, may affect the economic viability of the Company's properties. In addition, there can be no assurance that results obtained in small-scale laboratory tests, pilot plants or the Demonstration Plant will be duplicated in larger scale tests under on-site conditions or during production. The Company closely monitors its activities and those factors which could impact them, and employs experienced consulting, engineering, and legal advisors to assist in its risk management reviews where it is deemed necessary.

### **Operational Risks**

The Company will be subject to a number of operational risks and may not be adequately insured for certain risks, including: environmental contamination, liabilities arising from historic operations, accidents or spills, industrial and transportation accidents, which may involve hazardous materials, labor disputes, catastrophic accidents, fires, blockades or other acts of social activism, changes in the regulatory environment, impact of non-compliance with laws and regulations, natural phenomena such as inclement weather conditions, floods, earthquakes, ground movements, cave-ins, and encountering unusual or unexpected geological conditions and technological failure of exploration methods.

There is no assurance that the foregoing risks and hazards will not result in damage to, or destruction of, the property of the Company, personal injury or death, environmental damage or, regarding the exploration or development activities of the Company, increased costs, monetary losses and potential legal liability and adverse governmental action. These factors could all have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

Additionally, the Company may be subject to liability or sustain loss for certain risks and hazards against which the Company cannot insure or which the Company may elect not to insure because of the cost. This lack of insurance coverage could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

### **Construction Risks**

As a result of the substantial expenditures involved in development projects, developments are prone to material cost overruns versus budget. The capital expenditures and time required to develop new mines are considerable and changes in cost or construction schedules can significantly increase both the time and capital required to build the project.

Construction costs and timelines can be impacted by a wide variety of factors, many of which are beyond the control of the Company. These include, but are not limited to, weather conditions,



ground conditions, performance of the mining fleet and availability of appropriate rock and other material required for construction, availability and performance of contractors and suppliers, delivery and installation of equipment, design changes, accuracy of estimates and availability of accommodations for the workforce.

Project development schedules are also dependent on obtaining the governmental approvals necessary for the operation of a project. The timeline to obtain these government approvals is often beyond the control of the Company. A delay in start-up or commercial production would increase capital costs and delay receipt of revenues.

### **Environmental Risks**

All phases of mineral exploration and development businesses present environmental risks and hazards and are subject to environmental regulations. Environmental legislation provides for, among other things, restrictions and prohibitions on spills, releases or emissions of various substances used and or produced in association with natural resource exploration and production operations. The legislation also requires that facility sites be operated, maintained, abandoned and reclaimed to the satisfaction of applicable regulatory authorities. Compliance with such legislation can require significant expenditures, and a breach may result in the imposition of fines and penalties, some of which may be material.

Environmental legislation is evolving in a manner expected to result in stricter standards and enforcement, larger fines and liability and potentially increased capital expenditures and operating costs. The discharge of pollutants into the air, soil or water may give rise to liabilities to foreign governments and third parties and may require the Company to incur costs to remedy such discharge.

No assurance can be given that the application of environmental laws to the business and operations of the Company will not result in a curtailment of production or a material increase in the costs of production, development or exploration activities or otherwise adversely affect the Company's financial condition, results of operations or prospects.

### **Commodity Price Fluctuations**

The prices of commodities vary on a daily basis. Price volatility could have dramatic effects on the results of operations and the ability of the Company to execute its business plan. The price of lithium materials may also be reduced by the discovery of new lithium deposits, which could not only increase the overall supply of lithium (causing downward pressure on its price), but could draw new firms into the lithium industry which would compete with the Company. Even if commercial quantities of mineral deposits are discovered by the Company, there is no guarantee that a profitable market will exist for the sale of the metals produced. Factors beyond the control of the Company may affect the marketability of any substances discovered. The prices of various metals have experienced significant movement over short periods of time and are affected by numerous factors beyond the control of the Company, including international economic and political trends, expectations of inflation, currency exchange fluctuations, interest rates and global or regional consumption patterns, speculative activities and increased production due to improved mining and production methods. The supply of and demand for metals are affected by various factors, including political events, economic conditions and production costs in major producing regions. There can be no assurance that the price of any mineral deposit will be such that any of



its resource properties could be mined at a profit.

### **Volatility of the Market Price of the Shares**

Securities of junior companies have experienced substantial volatility in the past, often based on factors unrelated to the financial performance or prospects of the companies involved. These factors include macroeconomic developments in North America and globally and market perceptions of the attractiveness of particular industries. The Share price is also likely to be significantly affected by delays experienced in progressing with development plans, a decrease in investor appetite for junior stocks, or in adverse changes in our financial condition or results of operations as reflected in the Company's quarterly and annual financial statements. Other factors unrelated to performance that could have an effect on the price of the Shares include the following:

- (a) the trading volume and general market interest in the Shares could affect a shareholder's ability to trade significant numbers of common shares; and
- (b) the size of the public float in the Shares may limit the ability of some institutions to invest in the Company's securities.

As a result of any of these or other factors, the market price of the Shares at any given point in time might not accurately reflect the Company's long-term value. Securities class action litigation has been brought against companies following years of volatility in the market price of their securities. The Company could in the future be the target of similar litigation. Securities litigation could result in substantial costs and damages and divert management's attention and resources. Further, there is no guarantee that an active trading market for the Shares will be maintained on the TSXV and/or the NYSE American.

### **Cost Estimates**

The Company prepares estimates of operating costs and/or capital costs for each operation and project. The Company's actual costs are dependent on a number of factors, including royalties, the price of lithium and by-product metals and the cost of inputs used in exploration activities.

The Company's actual costs may vary from estimates for a variety of reasons, including labour and other input costs, commodity prices, general inflationary pressures and currency exchange rates. Failure to achieve cost estimates or material increases in costs could have an adverse impact on the Company's future cash flows, profitability, results of operations and financial condition.

### **Future Share Issuances May Affect the Market Price of the Shares**

In order to finance future operations, the Company may raise funds through the issuance of additional Shares or the issuance of debt instruments or other securities convertible into Shares. The Company cannot predict the size of future issuances of Shares or the issuance of debt instruments or other securities convertible into Shares or the dilutive effect, if any, that future issuances and sales of the Company's securities will have on the market price of the Shares.

### **Economic and Financial Market Instability**

Global financial markets have been volatile and unstable at times since the global financial crisis, which began in 2007. Bank failures, the risk of sovereign defaults, other economic conditions and intervention measures have caused significant uncertainties in the markets. The resulting disruptions in credit and capital markets have negatively impacted the availability and terms of credit and capital. High levels of volatility and market turmoil could also adversely impact commodity prices, exchange rates and interest rates. In the short term, these factors, combined with the Company's financial position, may impact the Company's ability to obtain equity or debt financing in the future and, if obtained, the terms that are available to the Company. In the longer term, these factors, combined with the Company's financial position could have important consequences, including the following:

- (a) increasing the Company's vulnerability to general adverse economic and industry conditions;
- (b) limiting the Company's ability to obtain additional financing to fund future working capital, capital expenditures, operating and exploration costs and other general corporate requirements;
- (c) limiting the Company's flexibility in planning for, or reacting to, changes in the Company's business and the industry; and
- (d) placing the Company at a disadvantage when compared to competitors that have less debt relative to their market capitalization.

### **Issuance of Debt**

From time to time, the Company may enter into transactions to acquire assets or the shares of other companies. These transactions may be financed partially or wholly with debt, which may increase the Company's debt levels above industry standards. The Company's articles do not limit the amount of indebtedness that the Company may incur. The level of the Company's indebtedness from time to time could impair the Company's ability to obtain additional financing in the future on a timely basis to take advantage of business opportunities that may arise. The Company's ability to service any future debt obligations will depend on the Company's future operations, which are subject to prevailing industry conditions and other factors, many of which are beyond the control of the Company.

### **Financing Risks**

The Company's development and exploration activities may require additional external financing. There can be no assurance that additional capital or other types of financing will be available when needed or that, if available, the terms of such financing will be acceptable to the Company. Furthermore, if the Company raises additional capital by offering equity securities or securities convertible into equity securities, any additional financing may involve substantial dilution to existing shareholders. Failure to obtain sufficient financing could result in the delay or indefinite postponement of exploration, development, construction or production of any or all of the Company's mineral properties. The cost and terms of such financing may significantly reduce the expected benefits from new developments or render such developments uneconomic.





## **Industry Competition and International Trade Restrictions**

The international resource industries are highly competitive. The value of any future reserves discovered and developed by the Company may be limited by competition from other world resource mining companies, or from excess inventories. Existing international trade agreements and policies and any similar future agreements, governmental policies or trade restrictions are beyond the control of the Company and may affect the supply of and demand for minerals, including lithium, around the world.

## **Governmental Regulation and Policy**

Mining operations and exploration activities are subject to extensive laws and regulations. Such regulations relate to production, development, exploration, exports, imports, taxes and royalties, labor standards, occupational health, waste disposal, protection and remediation of the environment, mine decommissioning and reclamation, mine safety, toxic and radioactive substances, transportation safety and emergency response, and other matters. Compliance with such laws and regulations increases the costs of exploring, drilling, developing, constructing, operating and closing mines and refining and other facilities. It is possible that, in the future, the costs, delays and other effects associated with such laws and regulations may impact decisions of the Company with respect to the exploration and development of properties, such as the properties in which the Company has an interest. The Company will be required to expend significant financial and managerial resources to comply with such laws and regulations. Since legal requirements change frequently, are subject to interpretation and may be enforced in varying degrees in practice, the Company is unable to predict the ultimate cost of compliance with these requirements or their effect on operations. Furthermore, future changes in governments, regulations and policies and practices, such as those affecting exploration and development of the Company's properties could materially and adversely affect the results of operations and financial condition of the Company in a particular year or in its long-term business prospects.

The development of mines and related facilities is contingent upon governmental approvals, licenses and permits which are complex and time consuming to obtain and which, depending upon the location of the project, involve multiple governmental agencies. The receipt, duration and renewal of such approvals, licenses and permits are subject to many variables outside the control of the Company, including potential legal challenges from various stakeholders such as environmental groups or non-government organizations. Any significant delays in obtaining or renewing such approvals, licenses or permits could have a material adverse effect on the Company, including delays and cost increases in the advancement of the Company's projects.

## **Permitting**

The Company's operations, development projects and exploration activities are subject to receiving and maintaining licenses, permits and approvals, including regulatory relief or amendments, (collectively, "**permits**") from appropriate governmental authorities. Before any development on any of its properties the Company must receive numerous permits, and continued operations at the Company's mines is also dependent on maintaining, complying with and renewing required permits or obtaining additional permits.

The Company may be unable to obtain on a timely basis or maintain in the future all necessary permits required to explore and develop its properties, commence construction or operation of





mining facilities and properties or maintain continued operations. Delays may occur in connection with obtaining necessary renewals of permits for the Company's existing operations and activities, additional permits for existing or future operations or activities, or additional permits associated with new legislation. It is possible that previously issued permits may become suspended or revoked for a variety of reasons, including through government or court action.

### **Surface Rights and Access**

Although the Company acquires the rights to some or all of the minerals in the ground subject to the tenures that it acquires, or has a right to acquire, in most cases it does not thereby acquire any rights to, or ownership of, the surface to the areas covered by its mineral tenures. In such cases, applicable mining laws usually provide for rights of access to the surface for the purpose of carrying on mining activities, however, the enforcement of such rights can be costly and time consuming. In areas where there are no existing surface rights holders, this does not usually cause a problem, as there are no impediments to surface access. However, in areas where there are local populations or land owners, it is necessary, as a practical matter, to negotiate surface access. There can be no guarantee that, despite having the right at law to access the surface and carry on mining activities, the Company will be able to negotiate a satisfactory agreement with any such existing landowners/occupiers for such access, and therefore it may be unable to carry out mining activities. In addition, in circumstances where such access is denied, or no agreement can be reached, the Company may need to rely on the assistance of local officials or the courts in such jurisdictions.

### **Risk Related to the Cyclical Nature of the Mining Business**

The mining business and the marketability of the products that are produced are affected by worldwide economic cycles. At the present time, the significant demand for lithium and other commodities in many countries is driving increased prices, but it is difficult to assess how long such demand may continue. Fluctuations in supply and demand in various regions throughout the world are common.

As the Company's mining and exploration business is in the exploration stage and as the Company does not carry on production activities, its ability to fund ongoing exploration is affected by the availability of financing which is, in turn, affected by the strength of the economy and other general economic factors.

### **Title Claims and First Nations Rights**

The Company has investigated its rights to explore and exploit its projects and, to the best of its knowledge, its rights in relation to lands covering the projects are in good standing. Nevertheless, no assurance can be given that such rights will not be revoked, or significantly altered, to the Company's detriment. There can also be no assurance that the Company's rights will not be challenged or impugned by third parties.

Although the Company is not aware of any existing title uncertainties with respect to lands covering material portions of its projects, there is no assurance that such uncertainties will not result in future losses or additional expenditures, which could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.



Certain of the Company's properties may be subject to the rights or the asserted rights of various community stakeholders, including First Nations and other indigenous peoples. The presence of community stakeholders may impact the Company's ability to develop or operate its mining properties and its projects or to conduct exploration activities. Accordingly, the Company is subject to the risk that one or more groups may oppose the continued operation, further development or new development or exploration of the Company's current or future mining properties and projects.

Such opposition may be directed through legal or administrative proceedings, or through protests or other campaigns against the Company's activities.

Governments in many jurisdictions must consult with, or require the Company to consult with, indigenous peoples with respect to grants of mineral rights and the issuance or amendment of project authorizations. Consultation and other rights of indigenous peoples may require accommodation including undertakings regarding employment, royalty payments and other matters. This may affect the Company's ability to acquire within a reasonable time frame effective mineral titles, permits or licenses in any jurisdictions in which title or other rights are claimed by First Nations and other indigenous peoples, and may affect the timetable and costs of development and operation of mineral properties in these jurisdictions. The risk of unforeseen title claims by indigenous peoples also could affect existing operations as well as development projects. These legal requirements may also affect the Company's ability to expand or transfer existing operations or to develop new projects.

### **Community Relations and License to Operate**

The Company's relationship with the host communities where it operates is critical to ensure the future success of its existing operations and the construction and development of its projects. There is an increasing level of public concern relating to the perceived effect of mining activities on the environment and on communities impacted by such activities. Certain non-governmental organizations ("NGOs"), some of which oppose globalization and resource development, are often vocal critics of the mining industry and its practices, including the use of cyanide and other hazardous substances in processing activities. Adverse publicity generated by such NGOs or others related to extractive industries generally, or the Company's exploration or development activities specifically, could have an adverse effect on the Company's reputation. Reputation loss may result in decreased investor confidence, increased challenges in developing and maintaining community relations and an impediment to the Company's overall ability to advance its projects, which could have a material adverse impact on the Company's results of operations, financial condition and prospects. While the Company is committed to operating in a socially responsible manner, there is no guarantee that the Company's efforts in this respect will mitigate this potential risk.

### **Acquisition and Integration Risks**

As part of its business strategy, the Company has sought and will continue to seek new operating, development and exploration opportunities in the mining industry. In pursuit of such opportunities, the Company may fail to select appropriate acquisition candidates or negotiate acceptable arrangements, including arrangements to finance acquisitions or integrate the acquired businesses and their personnel into the Company. The Company cannot assure that it can complete any acquisition or business arrangement that it pursues, or is pursuing, on favourable



terms, if at all, or that any acquisition or business arrangement completed will ultimately benefit its business. Such acquisitions may be significant in size, may change the scale of the Company's business and may expose the Company to new geographic, political, operating, financial or geological risks. Further, any acquisition the Company makes will require a significant amount of time and attention of the Company's management, as well as resources that otherwise could be spent on the operation and development of the Company's existing business.

Any future acquisitions would be accompanied by risks, such as a significant decline in the relevant metal price after the Company commits to complete an acquisition on certain terms; the quality of the mineral deposit acquired proving to be lower than expected; the difficulty of assimilating the operations and personnel of any acquired companies; the potential disruption of the Company's ongoing business; the inability of management to realize anticipated synergies and maximize the Company's financial and strategic position; the failure to maintain uniform standards, controls, procedures and policies; the impairment of relationships with employees, customers and contractors as a result of any integration of new management personnel; and the potential for unknown or unanticipated liabilities associated with acquired assets and businesses, including tax, environmental or other liabilities. In addition, the Company may need additional capital to finance an acquisition. Debt financing related to any acquisition may expose the Company to the risks related to increased leverage, while equity financing may cause existing shareholders to suffer dilution. There can be no assurance that any business or assets acquired in the future will prove to be profitable, that the Company will be able to integrate the acquired businesses or assets successfully or that it will identify all potential liabilities during the course of due diligence. Any of these factors could have a material adverse effect on the Company's business, prospects, results of operations and financial condition.

### **No Revenue and Negative Cash Flow**

The Company has negative cash flow from operating activities and does not currently generate any revenue. Lack of cash flow from the Company's operating activities could impede its ability to raise capital through debt or equity financing to the extent required to fund its business operations. In addition, working capital deficiencies could negatively impact the Company's ability to satisfy its obligations promptly as they become due. If the Company does not generate sufficient cash flow from operating activities, it will remain dependent upon external financing sources. There can be no assurance that such sources of financing will be available on acceptable terms or at all.

### **Legal and Litigation**

In the ordinary course of the Company's business, it may become party to new litigation or other proceedings in local or international jurisdictions in respect of any aspect of its business, whether under criminal law, contract or otherwise. The causes of potential litigation cannot be known and may arise from, among other things, business activities, employment matters, including compensation issues, environmental, health and safety laws and regulations, tax matters, volatility in the Company's stock price, failure to comply with disclosure obligations or labour disruptions at its project sites. Regulatory and government agencies may initiate investigations relating to the enforcement of applicable laws or regulations and the Company may incur expenses in defending them and be subject to fines or penalties in case of any violation and could face damage to its reputation. The Company may attempt to resolve disputes involving foreign contractors/suppliers through arbitration in another country and such arbitration proceedings may be costly and protracted, which may have an adverse effect on the Company's financial condition.



Litigation may be costly and time-consuming and can divert the attention of management and key personnel from the Company's operations and, if adjudged adversely to the Company, may have a material and adverse effect on the Company's cash flows, results of operations and financial condition.

### **Insurance**

The Company is also subject to a number of operational risks and may not be adequately insured for certain risks, including: accidents or spills, industrial and transportation accidents, which may involve hazardous materials, labor disputes, catastrophic accidents, fires, blockades or other acts of social activism, changes in the regulatory environment, impact of non-compliance with laws and regulations, natural phenomena such as inclement weather conditions, floods, earthquakes, tornados, thunderstorms, ground movements, cave-ins, and encountering unusual or unexpected geological conditions and technological failure of exploration methods.

There is no assurance that the foregoing risks and hazards will not result in damage to, or destruction of, the properties of the Company, personal injury or death, environmental damage or, regarding the exploration or development activities of the Company, increased costs, monetary losses and potential legal liability and adverse governmental action, all of which could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition. The payment of any such liabilities would reduce the funds available to the Company. If the Company is unable to fully fund the cost of remedying an environmental problem, it might be required to suspend operations or enter into costly interim compliance measures pending completion of a permanent remedy.

No assurance can be given that insurance to cover the risks to which the Company's activities are subject will be available at all or at commercially reasonable premiums. The Company is not currently covered by any form of environmental liability insurance, since insurance against environmental risks (including liability for pollution) or other hazards resulting from exploration and development activities is unavailable or prohibitively expensive. This lack of environmental liability insurance coverage could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

### **Conflicts of Interest**

The Company's directors and officers are or may become directors or officers of other mineral resource companies or reporting issuers or may acquire or have significant shareholdings in other mineral resource companies and, to the extent that such other companies may participate in ventures in which the Company may, or may also wish to participate, the directors and officers of the Company may have a conflict of interest with respect to such opportunities or in negotiating and concluding terms respecting the extent of such participation.

The Company and its directors and officers will attempt to minimize such conflicts. If such a conflict of interest arises at a meeting of the directors of the Company, a director who has such a conflict will abstain from voting for or against the approval of such participation or such terms. In appropriate cases, the Company will establish a special committee of independent directors to review a matter in which several directors, or officers, may have a conflict. In determining whether or not the Company will participate in a particular program and the interest to be acquired by it, the directors will primarily consider the potential benefits to the Company, the degree of risk to which



the Company may be exposed and its financial position at that time. Other than as indicated, the Company has no other procedures or mechanisms to deal with conflicts of interest.

### **Decommissioning and Reclamation**

Environmental regulators are increasingly requiring financial assurances to ensure that the cost of decommissioning and reclaiming sites is borne by the parties involved, and not by government. It is not possible to predict what level of decommissioning and reclamation (and financial assurances relating thereto) may be required in the future by regulators. The Company's ability to advance its projects could be adversely affected by any inability on its part to obtain or maintain the required financial assurances.

### **Climate Change**

The Company acknowledges climate change as an international and community concern and it supports and endorses various initiatives for voluntary actions consistent with international initiatives on climate change. However, in addition to voluntary actions, governments are moving to introduce climate change legislation and treaties at the international, national, state/provincial and local levels. Where legislation already exists, regulation relating to emission levels and energy efficiency is becoming more stringent. Some of the costs associated with reducing emissions can be offset by increased energy efficiency and technological innovation. However, if the current regulatory trend continues, the Company expects that this could result in increased costs at its operations in the future.

### **Dividends**

The Company has never paid cash dividends on our Shares and does not expect to pay any cash dividends in the future in favor of utilizing cash to support the development of our business. Any future determination relating to the Company's dividend policy will be made at the discretion of the Board of Directors and will depend on a number of factors, including future operating results, capital requirements, financial condition and the terms of any credit facility or other financing arrangements the Company may obtain or enter into, future prospects and other factors the Company's Board of Directors may deem relevant at the time such payment is considered. As a result, shareholders will have to rely on capital appreciation, if any, to earn a return on their investment in the Shares for the foreseeable future.

### **Time and Cost Estimates**

Actual time and costs may vary significantly from estimates for a variety of reasons, both within and beyond the control of the Company. Failure to achieve time estimates and significant increases in costs may adversely affect the Company's ability to continue exploration, develop the Company's projects and ultimately generate sufficient cash flows. There is no assurance that the Company's estimates of time and costs will be achievable.

### **Consumables Availability and Costs**

The Company's planned exploration, development and operating activities, including the profitability thereof, will continue to be affected by the availability and costs of consumables used



in connection with the Company's activities. Of significance, this may include concrete, steel, copper, piping, diesel fuel and electricity. Other inputs such as labor, consultant fees and equipment components are also subject to availability and cost volatility. If inputs are unavailable at reasonable costs, this may delay or indefinitely postpone planned activities. Furthermore, many of the consumables and specialized equipment used in exploration, development and operating activities are subject to significant volatility. There is no assurance that consumables will be available at all or at reasonable costs.

### **Mineral Resource Uncertainties**

Calculations of mineral resources, mineral reserves and metal recovery are estimates only, and there can be no assurance about the quantity and grade of minerals until reserves or resources are actually mined. Until reserves or resources are actually mined and processed, the quantity of reserves or resources and grades must be considered as estimates only. In addition, the quantity of reserves or resources may vary depending on commodity prices. Any material change in the quantity of resources, grade or stripping ratio or recovery rates may adversely affect the economic viability of the Projects and the Company's financial condition and prospects.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. Due to the uncertainty which may attach to mineral resources, there can be no assurances that mineral resources will be upgraded to mineral reserves as a result of continued exploration or during the course of operations. There can be no assurances that any of the mineral resources stated in this AIF or published technical reports of the Company will be realized. Until a deposit is actually extracted and processed, the quantity of mineral resources or reserves, grades, recoveries and costs must be considered as estimates only. In addition, the quantity of mineral resources or reserves may vary depending on, among other things, product prices. Any material change in the quantity of mineral resources or reserves, grades, dilution occurring during mining operations, recoveries, costs or other factors may affect the economic viability of stated mineral resources or reserves. In addition, there is no assurance that mineral recoveries in limited, small scale laboratory tests or pilot plants will be duplicated by larger scale tests or during production. Fluctuations in lithium prices, results of future drilling, metallurgical testing, actual mining and operating results, and other events subsequent to the date of stated mineral resources and reserves estimates may require revision of such estimates. Any material reductions in estimates of mineral resources or reserves could have a material adverse effect on the Company.

Despite exploration work on the Company's mineral property interests, to date no mineral reserves have been established thereon. In addition, the Company is still engaged in exploration on all of its material properties in order to determine if any economic deposits exist thereon. The Company may expend substantial funds in exploring some of its properties only to abandon them and lose its entire expenditure on the properties if no commercial or economic quantities of minerals are found. Even if commercial quantities of minerals are discovered, the exploration properties might not be brought into a state of commercial production. Finding mineral deposits is dependent on a number of factors, including the technical skill of exploration personnel involved.

The commercial viability of a mineral deposit once discovered is also dependent on a number of factors, some of which are the particular attributes of the deposit, such as content of the deposit including harmful substances, size, grade and proximity to infrastructure, as well as metal prices and the availability of power and water in sufficient supply to permit development. Most of these





factors are beyond the control of the entity conducting such mineral exploration. The Company is an exploration and development stage company with no history of pre-tax profit and no income from its operations. There can be no assurance that the Company's operations will be profitable in the future. There is no certainty that the expenditures to be made by the Company in the exploration and development of its properties will result in discoveries of mineralized material in commercial quantities. Most exploration projects do not result in the discovery of commercially mineable deposits and no assurance can be given that any particular level of recovery of mineral reserves will in fact be realized or that any identified mineral deposit will ever qualify as a commercially mineable (or viable) mineral deposit which can be legally and economically exploited. There can be no assurance that minerals recovered in small scale tests will be duplicated in large scale tests under on-site conditions or in production. If the Company is unsuccessful in its exploration and development efforts, it may be forced to acquire additional projects or cease operations.

### **Lithium Demand**

Lithium is considered an industrial mineral and the sales prices for the different lithium compounds are not public. Lithium is not a traded commodity like base and precious metals. Sales agreements are negotiated on an individual and private basis with each different end-user. Therefore, it is possible that the sales prices used in the LANXESS PEA will be different than the actual prices at which the Company is able to sell its lithium compounds. In addition, there are a limited number of producers of lithium compounds and it is possible that these existing producers will try to prevent newcomers from entering the chain of supply by increasing their production capacity and lowering sales prices. Factors such as foreign currency fluctuation, supply and demand, industrial disruption and actual lithium market sale prices could have an adverse impact on operating costs and stock market prices and on the Company's ability to fund its activities. In each case, the economics of the Arkansas Lithium Project could be materially adversely affected, even to the point of being rendered uneconomic.

### **Global Financial Conditions**

Global financial conditions have been subject to continued volatility. Government debt, the risk of sovereign defaults, political instability and wider economic concerns in many countries have been causing significant uncertainties in the markets. Disruptions in the credit and capital markets can have a negative impact on the availability and terms of credit and capital. Uncertainties in these markets could have a material adverse effect on the Company's liquidity, ability to raise capital and cost of capital. High levels of volatility and market turmoil could also adversely impact commodity prices, exchange rates and interest rates and have a detrimental effect on the Company's business.

### **COVID-19**

The Company's business, operations, and financial condition, and the market price of the Shares, could be materially and adversely affected by the outbreak of epidemics or pandemics or other health crises, including the recent outbreak of COVID-19. To date, there have been a large number of temporary business closures, quarantines, and a general reduction in consumer activity in a number of countries. The outbreak has caused companies and various international jurisdictions to impose travel, gathering and other public health restrictions. While these effects are expected to be temporary, the duration of the various disruptions to businesses locally and



internationally and the related financial impact cannot be reasonably estimated at this time. Similarly, the Company cannot estimate whether or to what extent this outbreak and the potential financial impact may extend to countries outside of those currently impacted. Such public health crises can result in volatility and disruptions in the supply and demand for lithium and other minerals, global supply chains and financial markets, as well as declining trade and market sentiment and reduced mobility of people, all of which could affect commodity prices, interest rates, credit ratings, credit risk, share prices and inflation. The risks to the Company of such public health crises also include risks to employee health and safety, a slowdown or temporary suspension of operations in geographic locations impacted by an outbreak, increased labor and fuel costs, regulatory changes, political or economic instabilities or civil unrest. At this point, the extent to which COVID-19 will or may impact the Company is uncertain and these factors are beyond the Company's control; however, it is possible that COVID-19 may have a material adverse effect on the Company's business, results of operations, and financial condition and the market price of the Shares.

Travel restrictions, border closures and quarantine procedures associated with the COVID-19 pandemic have limited the ability of management based in Canada to travel to project sites in the United States. Ongoing travel restrictions and border closures could result in delays in the execution of the business objectives of the Company, and ultimately the timeline for reaching a commercialization decision in respect of the Company's proprietary process for lithium extraction.

### **Infrastructure**

Mining, processing, development and exploration activities depend on adequate infrastructure. Reliable roads, bridges, power sources and water supply are important determinants which affect capital and operating costs. Unusual or infrequent weather phenomena, sabotage, or community, government or other interference in the maintenance or provision of such infrastructure could adversely affect the Company's operations, financial condition and results of operations.

### **Foreign Currency Risk**

The Company and its subsidiaries incur significant purchases denominated in currencies other than the presentation currency, the Canadian dollar, and are subject to foreign currency risk on assets and liabilities denominated in currencies other than the Canadian dollar. Expenditures are transacted in United States Dollars and the Company is exposed to risk of exchange rate fluctuation between the Canadian dollar and this currency. The Company does not hedge the foreign currency balances.

### **Corruption and Bribery Laws**

The Company's operations are governed by, and involve interactions with, many levels of government in other countries. The Company is required to comply with anti-corruption and anti-bribery laws, including the Criminal Code, and the Corruption of Foreign Public Officials Act (Canada), as well as similar laws in the countries in which the Company conducts its business. In recent years, there has been a general increase in both the frequency of enforcement and the severity of penalties under such laws, resulting in greater scrutiny and punishment to companies convicted of violating anti-corruption and anti-bribery laws. Measures that the Company has adopted to mitigate these risks are not always effective in ensuring that the Company, its employees or third-party agents will comply strictly with such laws. Furthermore, a company may



be found liable for violations by not only its employees, but also by its contractors and third-party agents. If the Company finds itself subject to an enforcement action or is found to be in violation of such laws, this may result in significant penalties, fines and/or sanctions imposed on the Company resulting in a material adverse effect on the Company's reputation and results of its operations.

### **Competition**

The Company faces strong competition from other mining companies in connection with the identification and acquisition of properties producing, or capable of producing, precious and base metals. Many of these companies have greater financial resources, operational experience and technical capabilities than the Company. As a result of this competition, the Company may be unable to identify, maintain or acquire attractive mining properties on acceptable terms or at all. Consequently, the Company's prospects, revenues, operations and financial condition could be materially adversely affected.

### **Taxation**

The Company is affected by the tax regimes of various local, regional and national authorities. Revenues, expenditures, income, investments, land use, intercompany transactions and all other business conditions can be taxed. Tax regulations, interpretations and enforcement policies may differ from the Company's applied methods and may change over time due to circumstances beyond the Company's control. The effect of such events could have material adverse effects on the Company's anticipated tax consequences. There is no assurance regarding the nature or rate of taxation, assessments and penalties that may be imposed.

Previous operations may have caused environmental damage at certain of the Company's properties. It may be difficult or impossible to assess the extent to which such damage was caused by the Company or by the activities of previous operators, in which case, any indemnities and exemptions from liability may be ineffective, and the Company may be responsible for the costs of reclamation. If any of the Company's properties move to a production stage, the Company would be subject to additional risks respecting any production activities.

## **DIVIDENDS AND DISTRIBUTIONS**

The Company has not, for any of the three most recently completed financial years or its current financial year, declared or paid any dividends on our Shares, and does not currently have a policy with respect to the payment of dividends. For the foreseeable future, we anticipate that we will not pay dividends but will retain future earnings and other cash resources for the operation and development of our business. The payment of dividends in the future will depend on our earnings, if any, our financial condition and such other factors as our directors consider appropriate.

## **CAPITAL STRUCTURE**

The authorized share capital of the Company consists of an unlimited number of Shares and an unlimited number of preferred shares ("**Preferred Shares**"), without par value. As of the date of this AIF, 147,286,101 Shares were issued and outstanding and there were no Preferred Shares issued and outstanding. In addition, as of the date of this AIF, there were 13,240,000 incentive stock options ("**Options**") and 4,404,756 Warrants outstanding.



Holders of Shares are entitled to receive notice of any meeting of shareholders of the Company, to attend and to cast one vote per Share at such meetings. Holders of Shares are also entitled to receive on a pro-rata basis such dividends, if any, as and when declared by the Board at its discretion from funds legally available therefor and upon the liquidation, dissolution or winding up of the Company are entitled to receive on a pro-rata basis, the net assets of the Company after payment of debts and other liabilities, in each case subject to the rights, privileges, restrictions and conditions attaching to any other series or class of shares ranking senior in priority. The Shares do not carry any pre-emptive, subscription, redemption or conversion rights.

## MARKET FOR SECURITIES

### Trading Price and Volume

The Shares are listed for trading on the TSXV under the trading symbol “SLI”.

The following table sets forth the high and low prices and total monthly volume of the Shares as traded on the TSXV for the periods indicated. All share prices are shown in Canadian dollars.

Period	High (\$)	Low (\$)	Total Volume
July 2020	1.490	0.970	4,043,989
August 2020	1.440	1.210	1,323,336
September 2020	1.975	1.020	10,917,379
October 2020	2.300	1.810	10,715,544
November 2020	3.030	1.990	7,972,690
December 2020	2.850	2.330	7,631,987
January 2021	4.600	2.860	12,815,604
February 2021	4.280	2.850	5,889,473
March 2021	4.180	3.030	5,979,276
April 2021	4.750	3.380	5,902,182
May 2021	4.400	3.370	3,654,956
June 2021	5.240	3.550	8,815,242



## Prior Sales

The Company issued the following securities during the most recently completed financial year:

Date	Class of Security	Amount Issued	Issue Price
June 10, 2021	Common Shares	6,251,250 <sup>(1)</sup>	\$0.74
June 10, 2021	Warrants	3,125,625 <sup>(2)</sup>	-
May 21, 2021	Common Shares	200,000 <sup>(3)</sup>	\$3.93
April 23, 2021	Common Shares	400,000 <sup>(4)</sup>	\$4.00
April 13, 2021	Options	400,000 <sup>(5)</sup>	\$3.43
January 18, 2021	Options	1,200,000 <sup>(6)</sup>	\$3.39
January 18, 2021	RSU	320,000 <sup>(7)(9)</sup>	-
January 18, 2021	PSU	960,000 <sup>(8)(9)</sup>	-
December 18, 2020	Common Shares	15,697,500 <sup>(10)</sup>	\$2.20
October 1, 2020	Common Shares	500,000 <sup>(11)</sup>	\$2.05
July 1, 2020 – June 30, 2021	Common Shares	12,620,133 <sup>(12)</sup>	-- <sup>(12)</sup>

### Notes:

- (1) Issued in connection with the early conversion of the Loan.
- (2) Issued in connection with the early conversion of the Loan. The warrants represent the right to purchase one Share at an exercise price of \$1.20 and over a three-year period from the date issued.
- (3) Issued to National Chloride pursuant to the Property Lease Agreement for an aggregate fair value of \$786,000.
- (4) Issued to TETRA pursuant to the TETRA 2<sup>nd</sup> Option Agreement for an aggregate fair value of \$1,600,000.
- (5) Granted to consultants of the Company. Once vested, each option is exercisable by the holder to acquire one Share at a price of \$3.43 for a period of 3 years. The options will vest as follows: 25% on the grant date, 25% on July 13, 2021, 25% on October 13, 2021, and 25% on January 13, 2022.
- (6) Granted pursuant to the Company's incentive stock option plan.
- (7) Issued to a Director of the Company for past services to the Company pursuant to the LTIP. Each PSU represents the right to receive, once vested, one Share. The PSUs will vest upon the achievement of the performance milestones.
- (8) Issued to a Director of the Company for past services to the Company pursuant to the LTIP. Each RSU represents the right to receive, once vested, one Share. The RSUs vest quarterly in four equal parts over a twelve-month period, with the first part vesting on September 30, 2021, subject to the note below.
- (9) The LTIP, and the issuances of securities thereunder, remain subject to ratification by the disinterested shareholders of the Company and the TSXV. No PSUs or RSUs will vest, and no Shares will be issued in connection with any outstanding PSUs or RSUs, until such time as the LTIP receives approval of disinterested shareholders and the TSXV. In the event such approvals are not received prior to December 31, 2021, all PSUs and RSUs will be automatically cancelled without any further right or entitlement.
- (10) Issued in connection with the December 2020 Public Offering.
- (11) Issued to Nevada Alaska pursuant to the Option Purchase Agreement.
- (12) Issued upon the exercise of: (i) an aggregate of 1,375,000 stock options during the year ended June 30, 2021 for aggregate proceeds of \$1,241,500; and (ii) an aggregate of 11,245,133 warrants during the year ended June 30, 2021 for aggregate proceeds of \$10,190,569.



Subsequent to June 30, 2021, the Company issued the following securities:

Date	Class of Security	Amount Issued	Issue Price
July 20, 2021	Option	200,000 <sup>(1)</sup>	\$6.08
July 20, 2021	PSU	22,500 <sup>(2)(4)</sup>	-
July 20, 2021	RSU	7,500 <sup>(3)(4)</sup>	-
July 1, 2021 – October 20, 2021	Common Share	4,383,790 <sup>(5)</sup>	- <sup>(5)</sup>

**Notes:**

- (1) Issued to a Director of the Company.
- (2) Issued to a Director of the Company for past services to the Company pursuant to the LTIP. Each PSU represents the right to receive, once vested, one Share. The PSUs will vest upon the achievement of the performance milestones.
- (3) Issued to a Director of the Company past services to the Company pursuant to the LTIP. Each RSU represents the right to receive, once vested, one Share. The RSUs vest quarterly in four equal parts over a twelve-month period, with the first part vesting on September 30, 2021.
- (4) The LTIP, and the issuances of securities thereunder, remain subject to ratification by the disinterested shareholders of the Company and the TSXV. No PSUs or RSUs will vest, and no Shares will be issued in connection with any outstanding PSUs or RSUs, until such time as the LTIP receives approval of disinterested shareholders and the TSXV. In the event such approvals are not received prior to December 31, 2021, all PSUs and RSUs will be automatically cancelled without any further right or entitlement.
- (5) Issued upon the exercise of: (i) an aggregate of 434,745 stock options subsequent to the year ended June 30, 2021 with an aggregate fair value of \$441,961; and (ii) an aggregate of 3,949,045 warrants subsequent to the year ended June 30, 2021 for aggregate proceeds of \$4,190,316.

### ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTIONS ON TRANSFER

As at the date of this AIF, no Shares are held in escrow or subject to a contractual restriction on transfer.

### DIRECTORS AND OFFICERS

#### Name, Province or State, Country of Residence and Offices Held

The following table sets forth the name of each of our directors and executive officers, their province or state and country of residence, their position(s) with the Company, their principal occupation during the preceding five years and the date they first became a director of the Company. Each director's term will expire immediately prior to the following annual meeting of shareholders.

Name and Residence	Position(s) with the Company	Principal Occupation During Past Five Years	Director Since
<b>Anthony Alvaro</b> British Columbia, Canada	Director	Current principal occupation is Corporate Advisor and Director of the Company.	January 23, 2017
<b>Jeffrey Barber</b> <sup>(1)</sup> Alberta, Canada	Director	Current principal occupation is Chief Financial Officer of DOJA Cannabis Company Limited.	January 23, 2017

Name and Residence	Position(s) with the Company	Principal Occupation During Past Five Years	Director Since
<b>Robert Cross</b> <sup>(1)</sup> British Columbia, Canada	Director and Non-Executive Chairman	Current principal occupation is Corporate Board Member; Chairman of B2Gold Corp.	September 4, 2018
<b>Robert Mintak</b> British Columbia, Canada	CEO and Director	Current principal occupation is Chief Executive Officer of the Company; and Board member of Golden Independence Mining Corp. Telescope Innovation Corp. and Identillect Technologies Corp.	March 21, 2017
<b>Andrew Robinson</b> British Columbia, Canada	President, COO and Director	Current principal occupation is Chief Operating Officer of the Company; and Board member of Telescope Innovation Corp.	June 5, 2017
<b>Dr. Volker Berl</b> <sup>(1)</sup> New York, USA	Director	Current principal occupation is Managing Partner of New Age Ventures.	July 20, 2021
<b>Kara Norman</b> British Columbia, Canada	CFO and Corporate Secretary	Current principal occupation is Chief Financial Officer of the Company.	n/a

Note:

(1) Member of Audit Committee.

## Shareholdings of Directors and Officers

As of the date of this AIF, the Company's directors and executive officers beneficially own, control or direct, directly or indirectly, 7,006,467 Shares.

## Cease Trade Orders, Bankruptcies, Penalties or Sanctions

None of our directors or executive officers is, as at the date hereof, or was within 10 years before the date hereof, a director, chief executive officer or chief financial officer of any company (including the Company) that (a) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant issuer access to any exemption under securities legislation, that was in effect for a period or more than 30 consecutive days (a "**Cease Trade Order**") that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer of such issuer, or (b) was subject to a Cease Trade Order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

None of our directors or executive officers, nor, to our knowledge, any shareholder holding a sufficient number of our securities to affect materially the control of the Company (a) is, as at the date hereof, or has been within the 10 years before the date hereof, a director or executive officer of any company (including ours) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee



appointed to hold its assets, or (b) has, within the 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of such director, executive officer or shareholder.

None of our directors or executive officers, nor, to our knowledge, any shareholder holding a sufficient number of our securities to affect materially the control of the Company, has been subject to (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

### **Conflicts of Interest**

Unless otherwise noted in this AIF, to the best of our knowledge, there are no known existing or potential material conflicts of interest between the Company or its subsidiaries and any of our directors or officers or a director or officer of our subsidiaries. However, certain of our directors and officers are, or may become, directors or officers of other companies, with businesses that may conflict with our business. Accordingly, conflicts of interest may arise which could influence these individuals in evaluating possible acquisitions or in generally acting on behalf of the Company. Pursuant to the BCBCA, directors are required to act honestly and in good faith with a view to the best interests of the Company. As required under the BCBCA and our Articles:

- A director or executive officer who holds any office or possesses any property, right or interest that could result, directly or indirectly, in the creation of a duty or interest that materially conflicts with that individual's duty or interest as a director or executive officer of the Company, must promptly disclose the nature and extent of that conflict.
- A director who holds a disclosable interest (as that term is used in the BCBCA) in a contract or transaction into which the Company has entered or proposes to enter may generally not vote on any directors' resolution to approve the contract or transaction.

Generally, as a matter of practice, directors or executive officers who have disclosed a material interest in any transaction or agreement that our Board is considering will not take part in any Board discussion respecting that contract or transaction. If on occasion such directors do participate in the discussions, they will abstain from voting on any matters relating to matters in which they have disclosed a material interest. In appropriate cases, we will establish a special committee of independent directors to review a matter in which directors, or management, may have a conflict.

### **PROMOTERS**

During the previous three fiscal years, no person or company has been a promoter of the Company or any subsidiary of the Company.





## AUDIT COMMITTEE

### Composition of the Audit Committee

The current members of the Audit Committee are Robert Cross, Volker Berl and Jeffrey Barber, all three of whom are independent and all of whom are financially literate as defined by National Instrument 52-110 – *Audit Committees* of the Canadian Securities Administrators (“**NI 52-110**”).

### Relevant Education and Experience

All members of the Audit Committee hold professional accounting designations and been involved in enterprises which public report financial results, each of which requires a working understanding of, and ability to analyze and assess, financial information (including financial statements).

### Audit Committee Oversight

At no time since the commencement of the Company’s most recently completed financial period was a recommendation of the Audit Committee to nominate or compensate an external auditor not adopted by the Board.

### Reliance on Certain Exemptions

At no time since the commencement of the Company’s most recently completed financial year has the Company relied on the exemption in Section 2.4 of NI 52-110 (De Minimis Non-audit Services), or an exemption from NI 52-110, in whole or in part, granted under Part 8 of NI 52-110.

### Pre-approval Policies and Procedures

The Audit Committee charter, attached as Schedule “A”, provides for the Audit Committee to establish the auditors’ fees. Such fees have been based upon the complexity of the matters in question and the time incurred by the auditors. Management of the Company believes that the fees negotiated in the past with the auditors of the Company were reasonable in the circumstances and would be comparable to fees charged by other auditors providing similar services.



## External Auditor Service Fees (by Category)

The aggregate fees billed by the Company's external auditors in each of the last two fiscal years for audit fees are as follows:

Financial Year Ended	Audit Fees <sup>(1)</sup>	Audit-Related Fees <sup>(2)</sup>	Tax Fees <sup>(3)</sup>	All Other Fees <sup>(4)</sup>
June 30, 2021	\$38,000	\$17,000	\$8,000	\$36,820
June 30, 2020	\$34,000	\$17,000	\$9,000	\$3,000

**Notes:**

- (1) "Audit fees" include aggregate fees billed by the Company's external auditor in each of the last two fiscal years for audit fees.
- (2) "Audited related fees" include the aggregate fees billed in each of the last two fiscal years for assurance and related services by the Company's external auditor that are reasonably related to the performance of the audit or review of the Company's financial statements and are not reported under "Audit fees" above. The services provided include employee benefit audits, due diligence assistance, accounting consultations on proposed transactions, internal control reviews and audit or attest services not required by legislation or regulation.
- (3) "Tax fees" include the aggregate fees billed in each of the last two fiscal years for professional services rendered by the Company's external auditor for tax compliance, tax advice and tax planning. The services provided include tax planning and tax advice includes assistance with tax audits and appeals, tax advice related to mergers and acquisitions, and requests for rulings or technical advice from tax authorities.
- (4) "All other fees" include the aggregate fees billed in each of the last two fiscal years for products and services provided by the Company's external auditor, other than "Audit fees", "Audit related fees" and "Tax fees" above.

## LEGAL PROCEEDINGS AND REGULATORY ACTIONS

There are no legal proceedings or regulatory actions material to us to which we are a party, or to which we have been a party since our incorporation, or of which any property of the Company is or has been the subject matter of, since the beginning of the financial year ended June 30, 2021, and no such proceedings are known by us to be contemplated. There have been no penalties or sanctions imposed against us by a court relating to provincial or territorial securities legislation or by any securities regulatory authority, there have been no penalties or sanctions imposed by a court or regulatory body against us, and we have not entered into any settlement agreements before a court relating to provincial or territorial securities legislation or with any securities regulatory authority since our incorporation.

## INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than disclosed elsewhere in this AIF, no director, senior officer or principal shareholder of the Company and no associate or affiliate of the foregoing have had a material interest, direct or indirect, in any transaction in which the Company has participated within the three-year period prior to the date of this AIF, or will have any material interest in any proposed transaction, which has materially affected or will materially affect the Company.



## **AUDITORS, TRANSFER AGENT AND REGISTRAR**

### **Auditors**

The Company's auditors are Manning Elliott LLP, Chartered Professional Accountants having an address at 17<sup>th</sup> Floor, 1030 West Georgia Street, Vancouver, British Columbia, V6E 3S7.

### **Transfer Agents, Registrars or Other Agents**

The transfer agent and registrar for the Shares in Canada is AST Trust Company (Canada), at its principal office in Vancouver, British Columbia.

### **MATERIAL CONTRACTS**

Except for contracts made in the ordinary course of business, the Company has not entered into any material contracts.

### **INTEREST OF EXPERTS**

Experts who have prepared reports for Standard in the financial year ending June 30, 2021 include the following:

Manning Elliott LLP, Chartered Professional Accountants, who prepared the auditors' report accompanying the audited financial statements of the Company for the most recent year end, report that they are independent in accordance with the Chartered Professional Accountants of British Columbia as at the date of such audit report.

### **Qualified Person and Technical Reports**

Certain scientific and technical information with respect to the LANXESS Property contained in this AIF has been taken from LANXESS Report, a copy of which is available on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com). Marek Dworzanowski, P.Eng., B.Sc. (Hons), FSAIMM independent consultant, Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd., Stanislaw Kotowski, P.Eng, M.Sc. of Worley and Dr. Ron Molnar Ph.D. have acted as qualified persons under NI 43-101 in connection with the LANXESS PEA. Stanislaw Kotowski, P.Eng, M.Sc. of Worley has retired from Worley and Reza Ehsani, P.Eng. has reviewed and approved the scientific and technical information on behalf of Worley. All such qualified persons have reviewed and approved the information related to the LANXESS Property contained in this AIF.

Certain scientific and technical information with respect to the South-West Arkansas Project contained in this AIF has been taken from the South-West Arkansas Resource Report, a copy of which is available on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com). Mr. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd., Dr. Ron Molnar Ph.D. P. Eng. of METNETH2O Inc. and Mr. Kaush Rakhit M.Sc. P. Geol. of Canadian Discovery Ltd. have acted as qualified persons under NI 43-101 in connection with the South-West Arkansas Resource Report. While the authors take ownership of their respective report sections, Mr. Eccles supervised and takes overall responsibility for the South-West Arkansas Resource Report and the maiden mineral resource estimate.



Certain scientific and technical information with respect to the California Lithium Project contained in this AIF has been taken from the California Technical Report, a copy of which is available on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com). William Feyerabend has acted as a qualified person under NI 43-101 in connection with the California Technical Report and has reviewed and approved the information related to the California Lithium Project contained in this AIF. All other scientific and technical information contained in this AIF has been reviewed and approved by Steve Ross, a Consultant and Project Manager, Exploration and Development of the Company, who is a Qualified Person as defined in NI 43-101.

None of the above-mentioned experts nor any director, officer, partner, or employee thereof, as applicable, received or has received a direct or indirect interest in our property or of any of our associates or affiliates. As at the date hereof, such persons, and the directors, officers, partners and employees, as applicable, of each of the experts beneficially own, directly or indirectly, in the aggregate, less than one percent of the securities of the Company and they did not receive any direct or indirect interest in any securities of the Company or of any associate or affiliate of the Company in connection with the preparation of such report. None of such persons, or any director, officer or employee, as applicable, of any such companies or partnerships, is currently expected to be elected, appointed or employed as a director, officer or employee of the Company or of any associate or affiliate of the Company.

All other scientific and technical information in this AIF has been reviewed and approved by Steve Ross, Registered Professional Geologist, who is a qualified person under NI 43-101. Mr. Ross is not independent of the Company as he is a Consultant and Project Manager, Exploration and Development. As of the date hereof, Mr. Ross holds 33,333 Warrants and 500,000 Options.

#### **ADDITIONAL INFORMATION**

Additional information relating to the Company may be found on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information including directors' and officers' remuneration and indebtedness, principal holders of our securities, securities authorized for issuance under equity compensation plans and a statement as to the interest of insiders in material transactions, was contained in the management proxy circular for the annual general and special meeting of shareholders held on December 30, 2020. Additional financial information is provided in the audited financial statements and management discussion and analysis for the most recent year-end. The foregoing additional information is available on SEDAR at [www.sedar.com](http://www.sedar.com) the Company's profile.

## **SCHEDULE “A” AUDIT COMMITTEE MANDATE**

### *Purpose of the Audit Committee*

The purpose of the Audit Committee (the “**Committee**”) of the Board of Directors (the “**Board**”) of Company is to provide an open avenue of communication between management, the Company’s independent auditor and the Board and to assist the Board in its oversight of:

- the integrity, adequacy and timeliness of the Company’s financial reporting and disclosure practices;
- the Company’s compliance with legal and regulatory requirements related to financial reporting; and
- the independence and performance of the Company’s independent auditor. The Committee shall also perform any other activities consistent with this Charter, the Company’s articles and governing laws as the Committee or Board deems necessary or appropriate.

The Committee shall consist of at least three directors. Members of the Committee shall be appointed by the Board and may be removed by the Board in its discretion. The members of the Committee shall elect a Chairman from among their number. A majority of the members of the Committee must not be officers or employees of the Company or of an affiliate of the Company. The quorum for a meeting of the Committee is a majority of the members who are not officers or employees of the Company or of an affiliate of the Company. With the exception of the foregoing quorum requirement, the Committee may determine its own procedures.

The Committee’s role is one of oversight. Management is responsible for preparing the Company’s financial statements and other financial information and for the fair presentation of the information set forth in the financial statements in accordance with Generally Accepted Accounting Principles (“**GAAP**”). Management is also responsible for establishing internal controls and procedures and for maintaining the appropriate accounting and financial reporting principles and policies designed to assure compliance with accounting standards and all applicable laws and regulations.

The independent auditor’s responsibility is to audit the Company’s financial statements and provide its opinion, based on its audit conducted in accordance with generally accepted auditing standards, that the financial statements present fairly, in all material respects, the financial position, results of operations and cash flows of the Company in accordance with GAAP.

The Committee is responsible for recommending to the Board the independent auditor to be nominated for the purpose of auditing the Company’s financial statements, preparing or issuing an auditor’s report or performing other audit, review or attest services for the Company, and for reviewing and recommending the compensation of the independent auditor. The Committee is also directly responsible for the evaluation of and oversight of the work of the independent auditor. The independent auditor shall report directly to the Committee.

### *Authority and Responsibilities*

In addition to the foregoing, in performing its oversight responsibilities, the Committee shall:

1. Monitor the adequacy of this Charter and recommend any proposed changes to the Board.
2. Review the appointments of the Company's Chief Financial Officer and any other key financial executives involved in the financial reporting process.
3. Review with management and the independent auditor the adequacy and effectiveness of the Company's accounting and financial controls and the adequacy and timeliness of its financial reporting processes.
4. Review with management and the independent auditor the annual financial statements and related documents and review with management the unaudited quarterly financial statements and related documents, prior to filing or distribution, including matters required to be reviewed under applicable legal or regulatory requirements.
5. Where appropriate and prior to release, review with management any news releases that disclose annual or interim financial results or contain other significant financial information that has not previously been released to the public.
6. Review the Company's financial reporting and accounting standards and principles and significant changes in such standards or principles or in their application, including key accounting decisions affecting the financial statements, alternatives thereto and the rationale for decisions made.
7. Review the quality and appropriateness of the accounting policies and the clarity of financial information and disclosure practices adopted by the Company, including consideration of the independent auditor's judgment about the quality and appropriateness of the Company's accounting policies. This review may include discussions with the independent auditor without the presence of management.
8. Review with management and the independent auditor significant related party transactions and potential conflicts of interest.
9. Pre-approve all non-audit services to be provided to the Company by the independent auditor.
10. Monitor the independence of the independent auditor by reviewing all relationships between the independent auditor and the Company and all non-audit work performed for the Company by the independent auditor.
11. Establish and review the Company's procedures for the:
  - receipt, retention and treatment of complaints regarding accounting, financial disclosure, internal controls or auditing matters; and
  - confidential and anonymous submissions by employees regarding questionable accounting, auditing and financial reporting and disclosure matters.



12. Conduct or authorize investigations into any matters that the Committee believes is within the scope of its responsibilities. The Committee has the authority to retain independent counsel, accountants or other advisors to assist it, as it considers necessary, to carry out its duties, and to set and pay the compensation of such advisors at the expense of the Company.
13. Perform such other functions and exercise such other powers as are prescribed from time to time for the audit committee of a reporting company in Parts 2 and 4 of Multilateral Instrument 52-110 of the Canadian Securities Administrators, the Business Corporations Act (*Canada*) and the articles of the Company.