



## **Management's Discussion and Analysis**

**FOR THE YEAR ENDED JUNE 30, 2019**

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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The following management's discussion and analysis ("MD&A") for Standard Lithium Ltd. was prepared by management based on information available as at October 25, 2019 and it should be reviewed in conjunction with the audited consolidated financial statements and related notes thereto of the Company for the year ended June 30, 2019. The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). All dollar figures are expressed in Canadian dollars unless otherwise stated. These documents and additional information on the corporation are available on SEDAR at [www.sedar.com](http://www.sedar.com).

As used in this MD&A, the terms "Standard" and "the Company" mean Standard Lithium Ltd., unless the context clearly requires otherwise.

### Forward-Looking Statements

This MD&A contains "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, "forward-looking information"). In certain cases, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations or the negative of such words and phrases, or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative of these terms or comparable terminology. By their very nature, forward-looking information involves known and unknown risks, uncertainties and other factors which 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 such forward-looking information. The Company disclaims any obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise.

Historical results of operations and trends that may be inferred from the following discussions and analysis may not necessarily indicate future results from operations.

### Nature of Business and Operations

Standard was incorporated under the laws of the Province of British Columbia on August 14, 1998. 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 common shares on the basis of one post-consolidation share for five pre-consolidation shares. All common share and per common share amounts in this report have been retroactively restated to reflect the share consolidation.

The Company's common shares are listed on the TSX Venture Exchange (the "TSXV") under the symbol "SLL". The head office is located at Suite 835, 1100 Melville Street, Vancouver, V6E 4A6 Canada. The Company was formerly in the oil and gas business but changed its focus during the 2016 fiscal year. The Company is currently focusing on evaluating, acquiring and developing lithium projects in the USA.

On August 11, 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"), pursuant to which the Company will acquire all of TY & Sons' right, title and interest in a property option agreement between TY & Sons and Nevada Mining, as property owner (the "Underlying Option Agreement"). Under the Underlying Option Agreement, TY & Sons has the option (the "Option") to acquire from Nevada Mining an

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### Nature of Business and Operations - continued

interest in the California Property (collectively, the "Option Purchase"), which comprises mineral claims situated in San Bernardino County, California. The transaction, having received the approval of the TSX Venture Exchange, closed on November 17, 2016. As consideration, the Company issued 14,000,000 common shares of the Company and paid certain costs incurred to TY & Sons.

In order to exercise the Option pursuant to the terms of the Underlying Option Agreement, the Company will be required to pay the total sum of US\$325,000 and issue an aggregate of 2,500,000 common shares to Nevada Mining as follows:

- US\$25,000 deposit paid within one business day of the Agreement Date (paid)
- US\$125,000 on closing of the Option Purchase Agreement (paid)
- US\$50,000 on or before July 7, 2017 (paid)
- US\$50,000 on or before July 7, 2018 (paid)
- US\$50,000 on or before July 7, 2019 (paid)
- US\$50,000 on or before July 7, 2020
  
- Issue 500,000 common shares on closing of the Option Purchase Agreement (issued)
- Issue 500,000 common shares on or before October 1, 2017 (issued)
- Issue 500,000 common shares on or before October 1, 2018 (issued)
- Issue 500,000 common shares on or before October 1, 2019 (issued)
- Issue 500,000 common shares on or before October 1, 2020

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% may be 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 February 2, 2017, the Company entered into a share purchase agreement to acquire all of the outstanding share capital of Moab Minerals Corp. ("Moab"), a privately-held British Columbia-based mineral exploration company. Moab holds the rights to the Paradox Project ("Paradox"), which consists of 2,175 placer claims, covering an area of approximately 43,335 acres, in the Paradox basin in Grand and San Juan counties in the State of Utah. In consideration for the claims Moab is required to pay the vendor US\$380,850 (paid) and US\$250,000 on each of the 12, 18, and 24 months anniversaries from the effective date of the purchase agreement between Moab and the vendor. In consideration for the acquisition of the share capital of Moab, the Company issued 6,850,000 common shares and has assumed responsibility for all outstanding liabilities of Moab. In addition, the Company paid a finders' fee of 200,000 common shares to an arm's length third-party who assisted in facilitating the acquisition. The transaction was approved by the TSX Venture Exchange and the common shares were issued on February 21, 2017. The value of the common shares of Moab acquired less the liabilities assumed, totaling \$8,449,939 has been attributed to the underlying Paradox surface rights held by Moab. On August 31, 2017, the Company dropped the Paradox Property and terminated the purchase agreement with the vendor. The Company recorded a write-off of mineral property of \$8,441,085. The Company has no further obligations or liabilities in relation to the Paradox Property.

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### Nature of Business and Operations – continued

On May 1, 2017, the Company signed a Property Lease Agreement with National Chloride Company of America ("National Chloride") for rights to an adjacent property to the California Property, with approximately 12,290 acres. Under this Property Lease Agreement, the Company paid US\$25,000 at signing of a Letter of Intent and will be required to pay the total sum of US\$1,825,000 and issue an aggregate of 1,700,000 common shares of the Company to National Chloride as follows:

- US\$25,000 on the Purchase Agreement date (paid)
  - US\$50,000 on or before November 24, 2017 (paid)
  - US\$100,000 on or before May 24, 2018 (paid)
  - US\$100,000 on or before May 24, 2019 (paid)
  - US\$100,000 on or before May 24, 2020
  - US\$100,000 on or before May 24, 2021
  - US\$100,000 on or before May 24, 2022
  - US\$250,000 upon successful completion of a pre-feasibility study
  - US\$1,000,000 upon successful completion of a bankable feasibility study
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- Issue 100,000 common shares on the closing date (issued)
  - Issue 100,000 common shares on or before November 24, 2017 (issued)
  - Issue 200,000 common shares on or before May 24, 2018 (issued)
  - Issue 200,000 common shares on or before May 24, 2019 (issued)
  - Issue 200,000 common shares on or before May 24, 2020
  - Issue 200,000 common shares on or before May 24, 2021
  - Issue 200,000 common shares on or before May 24, 2022
  - Issue 500,000 common shares successful completion of a pre-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 July 26, 2017, the Company entered into a Memorandum of Understanding (MOU) with Tetra Technologies Inc. to acquire certain rights to conduct brine exploration, production and lithium extraction activities on approximately 30,000 net brine acres located in Columbia and Lafayette Counties, Arkansas. At signing of the MOU, a non-refundable deposit of \$614,150 (US\$500,000) was made with additional fees and payment obligations in the future if the option is executed and exercised, and subject to certain conditions.

On September 1, 2017, the Company amended the Property Lease Agreement with National Chloride to include additional approximate 6,000 acres adjacent to the 12,290 acres. The amendment agreement continues all the economic terms of the previous lease agreement with National Chloride, with the additional requirement that the company will be responsible for ongoing carrying costs associated with the additional claims. A payment of \$56,873 (US\$44,805) was made to the Bureau of Land Management, Department of the Interior ("BLM") for these carrying costs.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

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### Nature of Business and Operations – continued

On October 23, 2017, the Company entered into a Memorandum of Understanding ("MOU"), with TETRA Technologies, Inc., to secure access to additional operating and permitted land consisting of approximately 12,100 acres in Bristol Dry Lake, and up to 11,840 acres in the adjacent Cadiz Dry Lake, Mojave Desert, California. The MOU with TETRA allows for the exclusive right to negotiate and conduct exploration activities and to enter into a mineral lease to allow exploration and production activities for lithium extraction on property held under longstanding mining claims and permits by TETRA. In connection with the entering into of the MOU, the Company has made a non-refundable deposit of \$125,800 (US\$100,000).

On November 1, 2017, the Company entered into a share purchase agreement to acquire all of the outstanding share capital of a privately held British Columbia based mineral exploration company (the "Vendor") which held the rights to a series of 54 prospective mineral claims located in San Bernardino County, California. In consideration for the acquisition of the Vendor, the Company proposed to issue 1,000,000 common shares, and assume responsibility for all outstanding liabilities of the Vendor. Closing of the acquisition was subject to the final approval of the TSX Venture Exchange, as well as certain other conditions as are customary in transactions of this nature. All common shares issued in connection with the acquisition would have been subject to a four-month-and-one-day hold period in accordance with the policies of the TSX Venture Exchange. During the year ended June 30, 2019, the Company decided to not complete the transaction and recorded a write-off of \$20,650. The Company has no further obligations or liabilities to the Vendor.

On December 29, 2017, the Company entered into an Option Agreement with Tetra Technologies Inc. to acquire certain rights to conduct brine exploration and production and lithium extraction activities on approximately 30,000 net brine acres located in Columbia and Lafayette Counties, Arkansas (the "Agreement Date"). Under this Option Agreement, the Company is required to make payments to the Vendor as follows:

- US\$500,000 before January 28, 2018 (paid)
- An additional US\$600,000 on or before December 29, 2018 (paid)
- An additional US\$700,000 on or before December 29, 2019
- An additional US\$750,000 on or before December 29, 2020
- Additional annual payments of US\$1,000,000 on or before each annual anniversary of the Agreement Date, beginning with that date that is 48 months following the Agreement Date, until the earlier of the expiration of the Exploratory Period or, if the Optionee exercises the Option, the Optionee beginning payment of the Royalty.

During the Lease Period, at any time following the commencement of Commercial Production, the Company agreed to pay a Royalty of 2.5% (minimum Royalty US\$1,000,000) to Tetra Technologies.

On May 9, 2018 the Company entered into a 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 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 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. Standard Lithium has paid an initial US\$3,000,000 reservation fee to LANXESS to locate and interconnect a lithium extraction pilot plant at one of

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### Nature of Business and Operations – continued

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 announced that it entered into a license, exploration and option agreement to formalise the memorandum of understanding with Tetra Technologies Inc. announced by the Company on October 30, 2017. The Option Agreement provides that the Company will acquire the rights to conduct lithium brine exploration activities on properties located in San Bernardino County, California. The properties total approximately 23,940 acres and consist of a series of mineral claims located in the Bristol Dry Lake and Cadiz Dry Lake regions in San Bernardino County, Ca.

Under the terms of the Option Agreement, the Company would initially acquire the right to conduct lithium exploration activities on the properties located in Bristol Dry Lake and Cadiz Dry Lake. These rights would be acquired in consideration for a series of cash payments and share issuances totaling US\$2,700,000 and 3,400,000 common shares, to be completed over a sixty-month period. Initially, the Company made a payment of US\$100,000 and issued 200,000 common shares. The agreement was subsequently revised with an effective date for payments and share issuances to be due on May 2<sup>nd</sup> going forward. The cash payments and share issuances would be made to TETRA, a non-affiliated NYSE-listed company, which is the underlying owner of the properties. Cash payment and share issuances are as follows:

- US\$100,000 initial payment on April 23, 2018 (paid)
- US \$100,000 on or before October 23, 2018 (paid)
- US\$200,000 on or before May 2, 2019 (paid)
- US\$200,000 on or before May 2, 2020
- US\$200,000 on or before May 2, 2021
- US\$200,000 on or before May 2, 2022
- US\$200,000 on or before May 2, 2023
- US\$500,000 upon successful completion of a pre-feasibility study
- US\$1,000,000 upon successful completion of a bankable feasibility study
  
- Issue 200,000 common shares on April 23, 2018 (issued)
- Issue 200,000 common shares on or before October 23, 2018 (issued)
- Issue 400,000 common shares on or before May 2, 2019 (issued)
- Issue 400,000 common shares on or before May 2, 2020
- Issue 400,000 common shares on or before May 2, 2021
- Issue 400,000 common shares on or before May 2, 2022
- Issue 400,000 common shares on or before May 2, 2023
- Issue 1,000,000 common shares successful completion of a pre-feasibility study

On July 3, 2018, the Company granted 300,000 stock options to a consultant of the Company at an exercise price of \$1.21 for a period of five years with vesting terms of 75,000 options at 3 months, 75,000 options at 6 months, 75,000 options at 9 months and 75,000 options at one year.

On July 23, 2018, the Company granted 150,000 stock options to a consultant of the Company at an exercise price of \$1.03 for a period of one year with all of the stock options vesting immediately on the date of grant.

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### Nature of Business and Operations – continued

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 achieved almost one million ounces of low cost gold production in 2018. 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 September 4, 2018, the Company granted 2,000,000 stock options to directors, officers and consultants of the Company at an exercise price of \$1.40 for a period of five years with all of the stock options vesting immediately on the date of grant.

During the year ended June 30, 2019 the Company issued a total of 450,000 common shares for the exercise of share purchase warrants. The Company received proceeds of \$112,500 upon exercise.

On October 1, 2018, the Company issued 500,000 common shares with a fair value of \$840,000 to Nevada Alaska Mining Co. Ltd.

On October 23, 2018, the Company issued 200,000 common shares with a fair value of \$280,000 to TETRA Technologies, Inc.

On November 9 2018, the Company signed a term sheet (the "LANXESS JV Term Sheet") with global specialty chemical company LANXESS for a contemplated joint venture to coordinate in the commercial development of lithium extracted from the Smackover Formation in South Arkansas.

Standard Lithium 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 proposed terms of the joint venture, LANXESS would contribute lithium extraction rights and grant access to its existing infrastructure to the joint venture, and Standard Lithium would contribute existing rights and leases held in the Smackover Formation and the pilot plant being developed on the Property, as well as its proprietary extraction processes including all relevant intellectual property rights. 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 Standard Lithium to participate in project funding on similar terms. The final terms of the joint venture and any funding arrangement 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 19, 2018, the Company issued its maiden resource assessment for the LANXESS brine project in Southern Arkansas. The Resource Report titled "Geological Introduction and Maiden Inferred Resource Estimate for Standard Lithium Ltd.'s Lanxess Smackover Lithium-Brine Property in Arkansas, United States" dated November 19, 2018 (the "Lanxess Resource Report"), was filed on the Company's SEDAR profile. The Lanxess Resource Report was completed in accordance with the National Instrument 43-101 – *Standard of Disclosure for Mineral Projects* with the mineral resource being estimated using the various Canadian Institute of Mining and Metallurgy best practice guidelines and standards. The main findings of the Lanxess Resource Report are highlighted in the Section below.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

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### Nature of Business and Operations – continued

On December 13, 2018, the Company acquired 2661881 Ontario Limited ("2661881") from Craig Johnstone Brown ("Brown") by purchasing all the issued and outstanding shares. 2661881 holds the intellectual property rights to a process for the selective extraction of lithium from brine solutions (the "IP Assets"). The Company determined that this transaction is an asset acquisition as the assets acquired did not constitute a business.

The consideration payable by the Company to Brown will be comprised of cash and common shares of the Company as follows:

- (i) \$50,000 deposit (paid);
- (ii) \$250,000 on the closing date (paid);
- (iii) \$250,000 promissory note payable six months after the closing date;(paid)
- (iv) 500,000 common shares on the closing date (issued);
- (v) \$500,000 payable on the earlier of (i) the third anniversary of the closing date, (ii) the date that the Company conclusively determines whether or not to proceed with the commercial development of the IP Assets (regardless of the outcome of such decision); or (iii) such other date as the Company and Brown may agree in writing (the "Investment Date"); and
- (vi) 500,000 shares issuable on the earlier of (i) the third anniversary of the closing date, (ii) the date that the Company conclusively determines whether to proceed with the commercial development of the IP Assets (regardless of the outcome of such decision); or (iii) such other date as the Company and Brown may agree in writing (the "Investment Date").

All cash payments and share issuances become immediately due and payable in the event a final decision is made by the Company to proceed with the commercial development of the IP Assets. In the event the Company does not make any of the required payments or share issuances, Brown has the right to re-acquire all of the issued share capital of 2661881, at which point the Company's obligations to make further payments will cease.

The fair value of the intangible assets acquired is as follows:

|                                                                               | \$               |
|-------------------------------------------------------------------------------|------------------|
| <b>Consideration paid</b>                                                     |                  |
| Cash                                                                          | 300,000          |
| Fair value of 500,000 common shares issued at closing date                    | 475,000          |
| Fair value of promissory note payable due six months after closing date       | 226,391          |
| Cash payable on or before the Investment Date                                 | 375,657          |
| Fair value of 500,000 common shares issuable on or before the Investment Date | 475,000          |
| Total consideration paid                                                      | 1,852,048        |
| Legal fees capitalized in connection with the acquisition of 2661881          | 58,301           |
| <b>Total</b>                                                                  | <b>1,910,349</b> |

On February 28, 2019, the Company issued its maiden resource assessment for the Tetra Smackover Lithium-Brine project in South Western Arkansas. The Resource Report titled "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 "Tetra Resource Report"), was filed on the Company's SEDAR profile. The Tetra Resource Report was completed in accordance with the National Instrument 43-101 – *Standard of Disclosure for Mineral Projects* with the mineral resource being estimated using the various Canadian Institute of Mining and Metallurgy best practice guidelines and standards. The main findings of the Tetra Resource Report are highlighted in the Section below.

On March 14, 2019, the Company, following review and comments from the British Columbia Securities Commission, revised and reissued both the Lanxess Resource Report and the Tetra Resource Report.

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## Management's Discussion and Analysis

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### Nature of Business and Operations – continued

On March 21, 2019, the Company closed a brokered short form prospectus financing and issued 11,390,500 units of the Company at a price of \$1.00 per unit, for gross proceeds of \$11,390,500. Each unit consists of one common share of the Company and one-half of one common share purchase warrant. Each full warrant is exercisable to acquire one common share of the Company at an exercise price of \$1.30 for a period of 36 months from the closing date (March 21, 2022). The Company paid underwriters' commission of \$570,685, issued 797,336 underwriter's warrants with a fair value of \$371,388 and incurred \$389,787 of additional share issuance costs to complete the financing. Each underwriter's warrant is exercisable to purchase an additional share at a price of \$1.00 per share for a period of 24 months from the closing date (March 21, 2021).

On April 1, 2019, the Company issued 750,000 stock options to consultants of the Company. The options were issued with an exercise price of \$1.00 for a period of three years. All options vest 90 days after grant.

On April 10, 2019, the Company closed a non-brokered private placement and issued 426,000 units of the Company at a price of \$1.00 per unit, for gross proceeds of \$426,000. Each unit consists of one common share of the Company and one-half of one common share purchase warrant. Each full warrant is exercisable to acquire one common share of the Company at an exercise price of \$1.30 for a period of 3 years. The units were issued with a four month and one day hold period.

On May 1, 2019, the Company issued 200,000 common shares with a fair value of \$166,000 to National Chloride.

On May 2, 2019, the Company issued 400,000 common shares with a fair value of \$340,000 to TETRA Technologies, Inc. in connection to the EOA for the California Property. All the common shares were issued with a four month and one day hold.

On August 1, 2019, the Company issued a Preliminary Economic Assessment ("PEA") for the LANXESS Smackover project in Southern Arkansas. The PEA was dated August 01, 2019 and was filed on the Company's SEDAR profile. The PEA was completed in accordance with the National Instrument 43-101 – *Standard of Disclosure for Mineral Projects* with the mineral resource being estimated using the various Canadian Institute of Mining and Metallurgy best practice guidelines and standards. The main findings of the Lanxess PEA are highlighted in the Section below.

# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

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### Nature of Business and Operations – continued

#### Mineral Properties and Projects

|                                                           | California<br>Property<br>\$ | Arkansas<br>Property<br>\$ | Total<br>\$ |
|-----------------------------------------------------------|------------------------------|----------------------------|-------------|
| Acquisition costs:                                        |                              |                            |             |
| Balance, December 31, 2017                                | 5,403,689                    | 1,258,000                  | 6,661,689   |
| Acquisition of property                                   | 723,157                      | 4,372,434                  | 5,095,591   |
| Effect of movement in foreign exchange rates              | 13,408                       | 191,194                    | 204,602     |
| Balance, June 30, 2018                                    | 6,140,254                    | 5,821,628                  | 11,961,882  |
| Reclassification from acquisition to<br>exploration costs | (53,508)                     | -                          | (53,508)    |
| Acquisition of property                                   | 2,096,767                    | 5,103,033                  | 7,199,800   |
| Effect of movement in foreign exchange rates              | (82,066)                     | (61,326)                   | (143,392)   |
| Balance, June 30, 2019                                    | 8,101,447                    | 10,863,335                 | 18,964,782  |
| Exploration Costs:                                        |                              |                            |             |
| Balance, December 31, 2017                                | 839,179                      | 385,038                    | 1,224,217   |
| Site management                                           | 152,826                      | -                          | 152,826     |
| Other exploration costs                                   | 1,669,003                    | 785,192                    | 2,454,195   |
| Effect of movement in foreign exchange rates              | 355,450                      | 41,773                     | 397,223     |
| Balance, June 30, 2018                                    | 3,016,458                    | 1,212,003                  | 4,228,461   |
| Reclassification from acquisition to<br>exploration costs | 53,508                       | -                          | 53,508      |
| Site management                                           | 61,621                       | -                          | 61,621      |
| Drilling                                                  | 915,839                      | -                          | 915,839     |
| Other exploration costs                                   | 368,856                      | 863,867                    | 1,232,723   |
| Effect of movement in foreign exchange rates              | (48,902)                     | (26,183)                   | (75,085)    |
| Balance, June 30, 2019                                    | 4,367,380                    | 2,049,687                  | 6,417,067   |
| Balance, June 30, 2018                                    | 9,156,712                    | 7,033,631                  | 16,190,343  |
| Balance, June 30, 2019                                    | 12,468,827                   | 12,913,022                 | 25,381,849  |

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### *Arkansas Lithium Project*

The Company's flagship project is located in south-central Arkansas, where it is engaged in the testing and proving of the commercial viability of lithium extraction from 150,000+ acres of operating brine leases. The Company is also conducting a mineral resource development of 27,000+ acres of separate brine leases located in south-western Arkansas.

Arkansas currently produces the equivalent of 42.6 million m<sup>3</sup> (9,380,000,000 gallons) of brine per year (based on Arkansas Oil and Gas Commission reported average brine production from 2010-2016), almost entirely from the Smackover Formation primarily to produce bromine and bromine-related chemicals.

On May 9, 2018 the Company announced the signing of a 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 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 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. Standard Lithium has paid an initial US\$3,000,000 reservation fee to LANXESS allowing the Company 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, cooperate with LANXESS as may be required to operate the pilot plant with additional fees and obligations due from the Company to LANXESS in the future subject to certain conditions.

Also, as described above, on November 9, 2018, the Company signed the LANXESS JV Term Sheet for a contemplated joint venture to coordinate in the commercial development of lithium extracted from the Smackover Formation in Southern Arkansas. Subsequent to this on November 19, the Company issued the Resource Report for the LANXESS brine project, and the Executive Summary of this is provided below; please see the full report as filed on the Company's SEDAR profile.

### **Lanxess Resource Report – Executive Summary**

The following is the extracted summary section from the Resource Report, 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 Mr. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd. ("APEX"), Dr. Ron Molnar Ph.D. P. Eng. of METNETH<sub>2</sub>O 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 Resource Report and the maiden mineral inferred resource estimate.

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

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

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - continued*

##### **Property Location and Description**

The Lanxess Smackover Lithium-Brine Property (the “Lanxess Property”) is located south and west of the City of El Dorado in Union County, Arkansas, United States. The Lanxess Property encompasses Townships 16-19 South and Ranges 15-18 West of the 5th Meridian, and the Lanxess Property centre is at: Universal Transverse Mercator 520600 Easting, 3670000 Northing, Zone 15N, North American Datum 83. The Lanxess Property has a vast brine infrastructure system that is owned 100% by LANXESS.

The Lanxess Property land package includes some 10,000 leases owned by LANXESS that cover 150,081.81 acres over an area of approximately 775 km<sup>2</sup> (>300 square miles). Note: The authors of this Technical Report have not reviewed all 10,000 leases owned by LANXESS. The legal and survey validation of the leases is not in our expertise and we are relying on Standard Lithium and LANXESS land-persons and lawyers to review and validate. Though with a declaration of net mineral acreage for brine production provided by LANXESS, the authors have no reason to question the validity or the good-standing of the leases through which LANXESS (and former companies) have been producing bromine from the brine since the 1950's.

##### **Accessibility and Infrastructure**

Of LANXESS' total land package, 142,881.81 acres are 'unitized' and approximately 7,200 acres occur outside the unit boundaries. In Arkansas, a 'unit' is an area of operation appointed by the Arkansas Oil and Gas Commission (“AOGC”) whereby volumes of brine extraction and reinjection are continuously balanced on a per-unit basis. The Lanxess Property is sub-divided into 3 contiguous 'units' based on the 3 unitized areas of shared bromine operation: South, Central and West unit areas. LANXESS-owned infrastructure at the Property includes: 3 bromine plants (1/unit area), all of which are in operation and producing bromine; 400 km of pipelines (250 miles); and 61 brine supply and reinjection wells.

Standard Lithium and LANXESS have signed the binding LANXESS MOU in which Standard Lithium has paid LANXESS an initial Reservation of Rights Fee of US\$3,000,000, to secure access to the tail-brine. Assuming the various milestones are adhered to, the LANXESS MOU is exclusive and binding for a period of 5 years (i.e., until approximately May 2023). The LANXESS JV Term Sheet has also been signed which describes the general form of a future joint venture at the Lanxess Property.

In the Lanxess Resource Report, the geological, and resource modelling and estimation, focus is on the Reynolds Member of the upper Jurassic Smackover Formation and its associated 'Reynolds Member aquifer'. At the Lanxess Property, the Reynolds Member aquifer is situated at a depth of approximately 2,300 m (or about 7,500 feet) beneath the Earth's surface. LANXESS currently pumps brine via brine supply wells situated throughout the Lanxess Property to its 3-unit production plants to extract bromine. The spent de-brominated brine is then pumped back down into the Smackover Formation aquifer through reinjection wells. Standard Lithium intends on Pilot Plant testing of tail-brine to see if lithium can be extracted from the brine.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - continued*

##### **Accessibility and Infrastructure - continued**

As with any development project there exists potential risks and uncertainties. Standard Lithium will attempt to reduce risk/uncertainty through effective project management, engaging technical experts and developing contingency plans. With respect to access, title, or the right or ability to perform work on the property, the following risks and uncertainties have been identified at this stage of project development:

- Lithium brine royalty assessment by the AOGC is not completed in a timely manner and/or the royalty rates overly impact project economics.
- Commissioning and/or operation of full-scale Pilot Plant does not conform to technical criteria as determined through the bench and mini-pilot lithium extraction testing performed to date.

##### **History**

According to brine production records maintained by the AOGC, LANXESS processed 660 million barrels (105 million m<sup>3</sup>) of brine from the Smackover Formation at the Lanxess Property to produce bromine and bromine-related chemicals between January 2013 and March 2018. Given this brine-focused production history, together with the region's hydrocarbon history that was also sourced from the Smackover Formation, a significant amount of information was either publicly available or was provided to the authors. These data and material provide background, supporting and relevant information that were of benefit to the authors in the preparation of the Resource Report. For example:

- 157 historical Li-brine analyses were provided by LANXESS. Minimum, maximum and average lithium values yielded 32 mg/L, 588 mg/L and 240 mg/L Li, respectively. The issuer and the senior author have been unable to verify the analytical protocol and methods that were adopted by LANXESS, and therefore, these data are not considered to be current and were not used in the preparation of the mineral resource estimate presented in this Resource Report.
- The AOGC has maintained oil and gas, and brine, well data and production records for the State of Arkansas. These data are on-line and easily searchable. For example, and with respect to brine, current and historical brine production records are available dating back to 1979. The records provide annual and monthly statistics for counties, brine fields and individual brine supply wells.
- Geologically, subsurface well log and electronic geophysical data were available that include: 699 and 198 wells that penetrated to the top and base of the Reynolds Member, respectively. Thirty-one wells had density logs and/or porosity logs within the Reynolds Member. In addition to the well log files, 620 line-km (385 line-miles) of proprietary 2D seismic data were used to create integrated seismic sub-surface maps.
- Proprietary independent laboratory core reports that measured effective porosity and permeability of 2,329 core plug samples from brine supply wells and injection wells within the Reynolds Member at the Lanxess Property.

##### **Exploration**

Standard Lithium conducted 2017 and 2018 brine geochemical exploration programs at the Lanxess Property. The distribution of the brine samples collected includes all brine distribution sample points on the Lanxess Property (i.e., 24 of 26 brine supply wells, and feed-brine and tail-brine from the South, Central and West bromine plants). In 2018, brine was collected from identical brine access points in two separate June and July sampling programs. The analytical work was conducted by independent, accredited commercial laboratories (WetLab in Sparks, Nevada and ALS-Houston, Texas). Brine from the brine supply wells (n=24 wells), contained an average lithium concentration of

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### Exploration – continued

164.9 mg/L Li. The average lithium concentration of the feed-brine and tail-brine from all 3 bromine plants was 163.5 and 150.0 mg/L Li, respectively.

Electronic well data were used to define the Reynolds Member type section and to formulate the upper and lower stratigraphic surfaces of the Reynolds Member domain. The subsurface geological modelling utilized electronic geophysical log data from:

- 699 wells to make stratigraphic picks to delineate the top of the Reynolds Member domain; and,
- 198 wells to make stratigraphic picks to delineate the base of the Reynolds Member domain.

Complementary to mapping the Reynolds Member using the well log data, the authors used proprietary seismic data within the boundary of the Lanxess Property to support the regional dip of the reflectors and overall delineation of the Reynolds Member domain.

#### Qualified Professional Site Inspection

The senior author Roy Eccles P. Geol. participated in a July 24-25, 2018 sampling program as part of a Qualified Professional site inspection of the Lanxess Property. In addition to collecting brine samples, in which subsequent analysis at an independent and accredited laboratory confirmed the Li-brine mineralization at the Lanxess Property, the site visit allowed the QP to validate the Property's brine infrastructure including: brine supply and reinjection wells; the brine pipeline network; feed-brine and tail-feed at LANXESS' bromine production plants; and the proposed site of Standard Lithium's Pilot Plant.

#### Mineral Processing

With respect to mineral processing, Standard Lithium has performed initial bench-scale and subsequent mini-pilot scale testing on tail-brine from the bromine production plants owned by LANXESS. Based on initial technology evaluation, a process has been selected that uses a stable, fine-grained solid sorbent material to selectively extract lithium from a brine stream that has undergone relatively minimal pre-treatment. This treatment process produces a high-purity lithium chloride (LiCl) solution that can then be converted and crystallised using several different existing technologies to produce lithium carbonate and/or lithium hydroxide monohydrate. Data gathered from the mini-pilot test work are sufficiently promising to justify design of a large-scale Pilot Plant, and commitments have been made by Standard Lithium to fund the construction, commissioning and operation of this plant at one of LANXESS' sites (and as part of the binding LANXESS MOU). It is proposed that the Pilot Plant (deployment targeted for 2019-H1) will operate for approximately one-year producing a variety of end products and enabling data to be collected on the process.

#### Mineral Resource Estimation

The mineral resource estimate has been completed in accordance with the National Instrument 43-101 – *Standard of Disclosure for Mineral Projects* with the mineral resource being estimated using the Canadian Institute of Mining and Metallurgy:

1. *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* dated 23 November 2003;
2. *Definition Standards for Mineral Resources and Mineral Reserves* amended and adopted 10 May 2014; and,
3. *Best Practice Guidelines for Resource and Reserve Estimation for Lithium Brines* dated 1 November 2012. The effective date of this Resource Report is 19<sup>th</sup> November 2018.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### Mineral Resource Estimation - continued

Critical steps in the determination of this Inferred Lanxess Li-brine Resource Estimate include:

1. Definition of the geometry of the Reynolds Member: Sub-surface data were loaded and multiple cross-sections were generated in the Property area to understand and define the key geological horizons. Surficial grids of the top and base of the Reynolds Member were used to construct a 3-D wireframe of the Reynolds Member that is used to define the Li-brine resource underlying the Lanxess Property. This domain boundary was clipped to the Property boundary and provides the starting point to evaluate the total *in-situ* volume of brine in the Reynolds Member underlying the Lanxess Property.
2. Estimate of total *in-situ* Reynolds Member brine: The total volume of the aquifer is 30.43 km<sup>3</sup>. Rather than assuming the 'average porosity' accurately represents the *in-situ* brine within the Reynolds Member aquifer, APEX has adopted a more robust spatial statistics approach to estimate brine volume on a block-by-block basis where each block is assigned a porosity value that best represents the geological substrate. The total *in-situ* volume of brine within the Reynolds Member domain is calculated by multiplying each block's estimated porosity value by its volume within the Reynolds Member domain (as specified by the calculated block factor). The total *in-situ* brine volume within the Reynolds Member domain is 3.52 km<sup>3</sup>.
3. Hydrogeological characterization of the Reynolds Member aquifer: Mr. Kaush Rahkit provides hydrogeological discussion (porosity, permeability, dispersivity, anisotropy, groundwater levels, specific storage and storativity). The evaluation shows the Reynolds Member is best represented by a prolific, large-scale aquifer that is vertically bound by two aquitards and yields significant quantities of brine as supported by a long operational history. The average porosity and permeability on the property is 11.2% and 202 mD, respectively. Using an average Reynolds Member thickness of 56.7 m yields the following general aquifer characteristics:
  - a. hydraulic conductivity of  $5.8 \times 10^{-6}$  m/s;
  - b. transmissivity of the aquifer is  $3.3 \times 10^{-4}$  m<sup>2</sup>/s; and,
  - c. storativity of the aquifer is  $2.2 \times 10^{-5}$ .
4. Additionally, LANXESS (and the predecessor companies) have been extracting brine from the aquifer since 1957. Over the last five years (2013 to 2017) approximately 660 million barrels (105 million m<sup>3</sup>) of brine has been extracted from brine supply wells pumping from the Reynolds Member domain within the Lanxess Property. The average brine extraction rate was consistently around 55,039 m<sup>3</sup>/day (346,185 barrels per day).
5. Determination of the concentration of lithium in the brine: Based on Standard Lithium's June and July 2018 sampling programs, the average lithium content of the brine supply wells across the entire property (164.9 mg/L Li) is used in the resource estimation presented in this Resource Report.
6. Reasonable prospects for eventual economic extraction: The Lanxess Li-brine project has reasonable prospects for eventual economic extraction based on aquifer geometry, hydrogeological characterisation, effective porosity, brine access, brine volume and flow rate, lithium concentration, bench-scale recoverability experiments conducted to date and the assumption of continued, and strong marketing value. There is collective agreement among the multi-disciplinary team of Qualified Persons that the Lanxess Li-brine project has reasonable prospects for eventual economic extraction, and the senior author, Mr. Eccles P. Geol., takes responsibility for this statement.
7. The final step is Mineral Resource reporting.

The resource estimate of the Li-brine at the Lanxess Property is classified as an "Inferred" Mineral Resource and was classified in accordance with guidelines established by the Canadian Institute of Mining and Metallurgy. By definition, "An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity."

# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

### Mineral Properties and Projects – continued

#### Mineral Resource Estimation – continued

A cutoff concentration of 50 mg/L Li was used in this Lanxess Li-Brine Resource estimation, as the value represents the lowest grade, or quality, of mineralized material that is then amalgamated together with brine from multiple brine supply wells (n=23 wells) to form the feed-brine for processing.

Estimation of the Reynolds Member, Smackover Formation has been estimated using the relation:  $Lithium\ Resource = P_{average} \times V_{Aquifer} \times C_{average}$ , where:

- $P_{average}$  = Average global block model porosity (11.6%) calculated by using the volume-weighted average porosity of the brine units and their respective unit areas;
- $V_{Aquifer}$  = Total volume of the Reynolds Member aquifer (30.427 km<sup>3</sup>); and
- $C_{average}$  is the average concentration of Li in brine that was collected at the brine supply wells (164.9 mg/L Li).

The main Maiden Inferred Lanxess Li-Brine Resource is estimated at 580,000 tonnes of elemental Li (639,000 tons elemental Li; Table 1). The total lithium carbonate equivalent ("LCE") for the main resource is 3,086,000 tonnes LCE (3,401,000 tons LCE). 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. Maiden Inferred Lanxess Lithium-Brine Resource Estimate. The grey-shaded 'total' column represents the main resource**

| Reporting parameter                  | South Unit | Central Unit | West Unit | Total<br>(and main<br>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                           |
| Mean lithium concentration (mg/L)    | 164.9      | 164.9        | 164.9     | 164.9                           |
| Average Porosity                     | 11.8%      | 12.0%        | 11.2%     | 11.6%                           |
| Total elemental Li resource (tonnes) | 114,000    | 164,000      | 303,000   | <b>580,000</b>                  |
| Total elemental Li resource (tons)   | 125,000    | 181,000      | 333,000   | <b>639,000</b>                  |
| Total LCE (tonnes)                   | 605,000    | 873,000      | 1,610,000 | 3,086,000                       |
| Total LCE (tons)                     | 666,000    | 963,000      | 1,775,000 | 3,401,000                       |

Note 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.

Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs) and United States short tons (2,000 lbs or 907.2 kg).

Note 3: Numbers may not add up due to rounding of the resource values percentages (rounded to the nearest 1,000 unit).

Note 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.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### Mineral Resource Estimation - continued

Note 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.

Note 6: The Lanxess estimation was completed and reported using a cutoff of 50 mg/L Li.

Note 7: A conversion factor of 5.323 is used to convert elemental Li to  $\text{Li}_2\text{CO}_3$ , or Lithium Carbonate Equivalent (LCE).

#### Other Relevant Data and Information

Standard Lithium intends on building a Pilot Plant at the Lanxess Property to demonstrate efficacy of the process and has commissioned the following work:

1. Zeton Inc. of Burlington Ontario to design and build a large-scale, continuously operated lithium-extraction Pilot Plant;
2. Saltworks Technologies Inc. to design and build a selective crystallization Pilot Plant to make battery-grade lithium carbonate in a continuous process; and,
3. Hunt Guillot & Associates LLC to design and manage all necessary works to locate and install the pilot plant modules into the currently operating bromine extraction plants.

The Pilot Plant development site is situated within the Lanxess South Plant. Pilot Plant installation is currently targeted for the First Half of 2019.

#### Recommendations

With respect to recommendations, the logical next steps for Standard Lithium to elevate the Lanxess Li-brine project to a higher level of resource classification are to:

1. Develop a commercial agreement to secure future brine access (n.b. this has been mostly completed through signing of the JV Term Sheet);
2. Continue with ongoing brine processing test work and development of a modern lithium extraction technology; and
3. Continue with ongoing geochemical programs and studies.

The Inferred Mineral Resource classification is conservative given the abundance of data available regarding geology, hydrogeology, porosity, brine grade and production figures for Lanxess Property. Higher levels of classification will be warranted with the development of the Pilot Plant and associated test work results that will generate: detailed discussion of the technical aspects of the processing; assessment of the scalability of the project; and fuller disclosure of the risks and uncertainties as the project evolves.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project*

##### **Lanxess Preliminary Economic Assessment – Executive Summary**

As described above, on August 01 2019, the Company issued the Preliminary Economic Assessment (PEA) for the LANXESS project, and the Executive Summary of this is provided below; please see the full report as filed on the Company's SEDAR profile.

##### **Property Location and Description**

The LANXESS Property is located south and west of the City of El Dorado in Union County, AR, U.S.A. The southern and western edges of the Property border the State of Louisiana (LA) and Columbia County, respectively. The Property encompasses Townships 16-19 South, and Ranges 15-18, West of the 5th Meridian (W5M). The Property centre is at UTM 520600 Easting, 3670000 Northing, Zone 15N, NAD83.

##### **Ownership and History**

The LANXESS Property is presently owned by Lanxess Aktiengesellschaft (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 AOGC. The land package, which is indicated on Figure 4-2, 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 have reclassified the LANXESS Li-Brine Resource from an Inferred Mineral Resource to an Indicated Mineral Resource in the current Technical Report.

The average lithium concentration used in the resource calculation is 168 mg/L 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 lithium carbonate equivalent (LCE) for the main resource is 3,140,000 tonnes LCE. 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.

##### **Recovery Method and Mineral Processing**

Standard Lithium'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

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - continued*

##### **Recovery Method and Mineral Processing - continued**

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.

##### **Capital and Operating Cost Estimate**

###### **CAPEX**

Capital expenditures 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. 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*

| <b>Stage of Development</b> | <b>Description</b>                          | <b>Cost (US\$)</b> |
|-----------------------------|---------------------------------------------|--------------------|
| 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        |
|                             | <b>CAPEX TOTAL</b>                          | <b>437,162,000</b> |

###### **OPEX**

Operating expenditures 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 below.

# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

### Mineral Properties and Projects – continued

#### Arkansas Lithium Project - continued

#### Capital and Operating Cost Estimate - continued CAPEX

Table 3 Annual Operating Cost Summary

| Description                       | Phase<br>(US\$)   | 1 Phase<br>(US\$) | 2 Phase<br>(US\$) | 3 |
|-----------------------------------|-------------------|-------------------|-------------------|---|
| 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> |   |
| Indirect Operational Expenditures | 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    | At completion of Phase 3 production  |
| 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          |                                      |
| Tax %                                  |        |               |                                      |

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - continued*

##### Capital and Operating Cost Estimate - continued

##### CAPEX

##### 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 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 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 LANXESS Smackover Project 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 Smackover Formation.
- 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 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 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 the South Plant should be used to collect as much data as possible to inform the next phases of study.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

- 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 PFS.

#### **Arkansas Lithium Project - Tetra Property**

On December 29th, 2017 the Company entered into an Option Agreement with Tetra Technologies to proceed with the transaction (the "Agreement Date"). Under the terms of the Option Agreement, the Company will be granted the rights in consideration for a series of cash payments, as well as certain ongoing royalties tied to lithium production from the properties.

Details of payments due on the Agreement are as follows:

- US\$500,000 before January 28, 2018 (paid)
- An additional US\$600,000 before December 29, 2018 (paid);
- An additional US\$700,000 before December 29, 2019;
- An additional US\$750,000 before December 29, 2020; and
- Additional annual payments of US\$1,000,000 on or before each annual anniversary of the Agreement Date, beginning with that date that is forty-eight (48) months following the Agreement Date, until the earlier of the expiration of the Exploratory Period or, if the Optionee exercises the Option, the Optionee beginning payment of the Royalty.

During the Lease Period, at any time following the commencement of Commercial Production, the Optionee shall pay a Royalty of 2.50% of revenue (minimum Royalty \$1,000,000USD) to Tetra Technologies Inc.

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 Standard'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 project 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.

#### **Tetra Resource Report – Executive Summary**

The following is a summary of the Resource Report, 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 Mr. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd. ("APEX"), Dr. Ron Molnar Ph.D. P. Eng. of METNETH<sub>2</sub>O 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 Tetra Resource Report and the maiden mineral resource estimate.

# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - Tetra Property - continued*

#### **Tetra Resource Report – Executive Summary - continued**

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

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

**Table 2 – Tetra 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 Resource Report was completed in accordance with the Canadian Securities Administration's National Instrument 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.

The TETRA 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 Property. This brine resource is in an area where there is localised oil and gas production, and where brine is produced as a waste by-product of hydrocarbon extraction. The data used to estimate and model the resource were gathered from active and abandoned oil and gas production wells on or adjacent to the Property.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - Tetra Property – continued*

#### **Tetra Resource Report – Executive Summary – continued**

The resource underlies a total of 802 separate brine leases and eight brine mineral deeds which form a patchwork across Columbia and Lafayette Counties in south-western Arkansas. The Property consists of 11,033 net hectares (27,262 net acres) leased by TETRA, and the resource estimate was only modelled for that footprint.

The resource area is split into the northern and southern resource zones, where a fault system is interpreted to act as a divide between the two areas (although there is hydrogeological continuity in the resource zone across the fault system). In general, the Upper and Middle Smackover formations are slightly thinner, with lower lithium grades in the northern zone, and slightly thicker with higher lithium grades in the southern zone. The depth, shape, thickness and lateral extent of the Smackover Formation were mapped out in a 3D model using the following data:

- 2,444 wells drilled into the subsurface in the general TETRA Property area. Of these, 2,041 wells were deep enough (2,135 m, or 7,000 feet) to penetrate the Upper Smackover Formation;
- 104 wells had electric logs available within the TETRA Property that included the top of the Upper Smackover Formation;
- 32 wells had electric logs available within the TETRA Property that included the base of the Upper Smackover Formation; and,
- 19 wells had electric logs available within the TETRA Property that included the base of the Middle Smackover Formation.

In addition, hardcopy prints of 20 proprietary regional seismic lines totaling over 200 line-km (over 125 line-miles) were procured, scanned, rasterized and loaded into Kingdom<sup>®</sup> seismic and geological interpretation software.

The porosity and permeability data used to characterize the Smackover Formation hydrological model included:

- Historical effective porosity measurements of more than 1,935 Smackover Formation core samples that yielded an average effective porosity of 14.3%;
- Historical permeability data that vary from <0.01 to >5,000 millidarcies (mD) with an average of 338 mD;
- 515 core plug samples from oil and gas wells within the Upper and Middle Smackover Formations at the TETRA Property were analysed for permeability and porosity and yielded an overall average permeability of 53.3 mD and a total porosity of 10.2%; and,
- 3,194 Smackover Formation total porosity values based on LAS density/porosity logs from 29 wells within, and/or adjacent to, the TETRA Property that have an average total porosity of 9.2%.

With respect to the resource estimation, a statistical review of the capped and declustered effective porosity measurements collected within the Upper and Middle Smackover formations resulted in average porosity values of 10.1% and 10.3% for the Upper and Middle Smackover formations, respectively.

Representative *in-situ* brine geochemistry was assessed using eight lithium brine samples taken from wells re-entered by Standard Lithium in 2018, and was supplemented by four historical samples. These data yielded an average lithium grade of 160 mg/L in the northern resource zone and 399 mg/L in the southern resource zone. Sample quality assurance and quality control was maintained throughout by use of sample blanks, duplicates and standard 'spikes', and by using an accredited, independent laboratory, with a long history of analysing very high salinity lithium brines.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Arkansas Lithium Project - Tetra Property - continued*

##### **Tetra Resource Estimation Methodology**

The resource estimate was completed by Independent qualified person (QP) Mr. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd., assisted by other Independent QP's; Dr. Ron Molnar Ph.D. P. Eng. of METNETH<sub>2</sub>O, and Mr. Kaush Rakhit M.Sc. P. Geol. of Canadian Discovery Ltd (hydrogeology). The resource estimate of the lithium brine at the TETRA Property 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 associated Technical Report was completed in accordance with the Canadian Securities Administration's National Instrument 43-101 and all associated documents and amendments.

##### **Future Target for Exploration**

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 Tetra 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.

#### *California Lithium Project*

The Bristol Dry Lake Project is located in San Bernardino County, CA approximately 150 miles east-northeast of Los Angeles. The Company has rights and access to four sets of placer mining claims (and some patented claims) which are mostly situated on Federal lands controlled by the Bureau of Land Management (BLM). The Bristol Lake playa is a flat, dry salt lake in the Mojave Desert that occupies approximately 155 sq. km in a 2,000 sq. km arid drainage basin. There are two established brine producers in the basin and 100+ years of industrial mineral production (salts and brines) from the below-surface brine deposits.

As described above, the Company entered into an option purchase and assignment agreement with TY & Sons and Nevada Alaska to acquire an interest in the BLD Claims. Under this agreement, as amended, the Company is required to pay to Nevada Alaska US\$125,000 by November 30, 2016 (paid) and US\$50,000 on each of the four years commencing on July 7, 2017. In addition, the Company is to issue 500,000 common shares to Nevada Alaska by November 30, 2016 (issued) and a further 500,000 common shares on each of the four years commencing on October 1, 2017.

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% may be 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. The property is also subject to ongoing BLM and County fees in order to keep the placer claims current and in good standing.

On May 1, 2017 the Company signed a Property Lease Agreement with National Chloride for rights to the adjacent approximate 12,290 acres. Under this agreement, the Company is required to pay US\$25,000 (paid) at signing of LOI, US\$25,000 (paid) at Agreement date, US\$50,000 and issuance of 100,000 Consideration Shares (issued) at or before 6 month anniversary of Agreement date, an additional five US\$100,000 cash payment and issuance of 200,000 Consideration Shares on or before each successive Agreement anniversary date, a cash payment of US\$250,000 and the issuance of 500,000 Consideration Shares upon successful completion of a pre-feasibility study and a cash

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *California Lithium Project - continued*

payment of US\$1,000,000 upon the successful completion of a bankable feasibility study on the Property. 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. The amendment agreement continues all the economic terms of the previous lease agreement with National Chloride, with the additional requirement that the Company will be responsible for ongoing carrying costs associated with the additional claims. A payment of \$56,873 (US\$44,805) was made to the Bureau of Land Management, Department of the Interior ("BLM") for these carrying costs.

On October 23, 2017, the Company entered into a Memorandum of Understanding ("MoU"), with TETRA Technologies, Inc., a NYSE-listed company ("TETRA") to secure access to additional operating and permitted land consisting of approximately 12,100 acres in Bristol Dry Lake, and up to 11,840 acres in the adjacent Cadiz Dry Lake, San Bernardino County, CA. As a result, the Company now has access to approximately 48,000 acres of mixed private, patented and placer claim land in the Bristol Dry Lake and Cadiz Dry Lake basins that allows for exclusive lithium brine exploration and processing (the two projects combined are referred to as the California Lithium Project). The new MoU with TETRA allows for the exclusive right to negotiate and conduct exploration activities and to enter into a mineral lease to allow exploration and production activities for lithium extraction on property held under longstanding mining claims and permits by TETRA (transaction terms described below). In connection with the entering into of the MoU, and in support of the transaction with TETRA, the Company has made a non-refundable deposit of US\$100,000.

On May 15, 2018, the Company announced that it has entered into a license, exploration and option agreement to formalise the memorandum of understanding with Tetra Technologies Inc. announced by the Company on October 30, 2017. The Option Agreement provides that the Company will acquire the rights to conduct lithium brine exploration activities on properties located in San Bernardino County, California. The properties total approximately 23,940 acres and consist of a series of mineral claims located in the Bristol Dry Lake and Cadiz Dry Lake regions in San Bernardino County, Ca.

Under the terms of the Option Agreement, the Company will initially acquire the right to conduct lithium exploration activities on the properties located in Bristol Dry Lake and Cadiz Dry Lake. These rights will be acquired in consideration for a series of cash payments and share issuances totaling US\$2,700,000 and 3,400,000 common shares, to be completed over a sixty-month period. Initially, the Company will make a payment of US\$100,000 and issue 200,000 common shares. The cash payments and share issuances will be made to TETRA, a non-affiliated NYSE-listed company, which is the underlying owner of the properties.

#### *Lithium Brine Processing Project*

The Company has engaged several third parties to perform brine processing testing on bulk brine samples gathered from the Company's Projects. Work is being completed on three main fronts: 1) pre-treating the Company's brines using modern filtration technologies; 2) selectively extracting lithium from pre-treated brine(s) to produce a concentrated lithium salt solution; and, 3) purifying and crystallisation of concentrated lithium solutions to produce battery quality lithium products. Much of the work is being completed with available off-the-shelf technology widely available and used in the water and wastewater processing industries; some is being performed with third party technology developed and protected by IP held by non-affiliated vendors and OEMs; and some is novel technology where IP is being developed and held by the Company and/or a technical advisor to the Company. This work is ongoing, and a demonstration-scale lithium extraction Pilot Plant has been installed at Lanxess' operational brine

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Mineral Properties and Projects – continued

#### *Lithium Brine Processing Project- continued*

processing facility at their South Plant. This installation was completed in mid-October 2019, and it is expected that commissioning of the Pilot Plant will commence during November 2019.

### QA/QC

Steve Ross, P.Geol., a Qualified Person as defined by NI 43-101, has reviewed and approved the technical disclosure in this MD&A.

### Selected Annual Information

The following table contains a summary of the Company's financial results as reported under IFRS:

|                                         | June 30,<br>2019<br>\$ | June 30,<br>2018<br>\$ | December 31,<br>2017<br>\$ |
|-----------------------------------------|------------------------|------------------------|----------------------------|
| Total revenue                           | -                      | -                      | -                          |
| Total assets                            | 44,391,331             | 30,920,583             | 12,600,559                 |
| Working capital surplus (deficiency)    | 1,578,892              | 13,964,324             | 3,459,827                  |
| Total non-current financial liabilities | 398,453                | -                      | -                          |
| Net loss                                | 8,578,841              | 3,745,091              | 19,911,856                 |
| Net loss per share                      | 0.11                   | 0.06                   | 0.37                       |

### Results of Operations

#### *Three months ended June 30, 2019 compared to the three months ended June 30, 2018:*

The Company incurred a net loss of \$498,870 for the quarter ended June 30, 2019 ("Q4-2019") compared to a net gain of \$5,094,520 for the quarter ended June 30, 2018 ("Q2-2018"). The primary reason for the increase in costs was a share-based adjustment that was entered on June 30, 2018. Consulting fees increased to \$647,711 during Q4-2019, compared with \$189,453 in Q2-2018, due to increased activity with the expansion of the Arkansas Project and the preparation of the updated 43-101 and Preliminary Economic Assessment reports. Management fees decreased to \$235,013 during Q4-2019 from \$280,635 incurred during Q2-2018 due to decreases in fees for Management. Professional Fees of \$32,199 were lower than fees of \$52,407 during Q2-2018. This is mainly due to lower legal fees incurred during the period. Filing and transfer agent fees of \$24,575 were lower than fees of \$44,271 during Q2-2018. The higher fees incurred during Q2-2018 relate to regulatory fees paid to the TSXV for the review of the TETRA acquisition. Office and administration cost of \$76,123 were higher than the costs of \$45,908 incurred during the comparative quarter due to higher miscellaneous office costs. Corporate development, advertising and investor relations costs of \$Nil and \$262,053 were incurred during Q4-2019 as compared to \$7,500 and \$211,780 during Q2-2018. The increase in costs relates to additional analyst coverage during the period. Travel costs of \$85,037 incurred during Q4-2019 were higher than costs of \$42,749 incurred during Q2-2018. These costs relate to flights, hotels, vehicle rental and meals for management when visiting existing projects and travel to meet with investors of the company. The share-based compensation during the period was \$266,291 as compared to \$(6,320,938) was recognised in Q2-2018 as share-based compensation. It should be noted that the Q1-2018 quarter included the costs related to a proposed grant of shares under Restricted Share Unit plan. Subsequent to the period ended March 31, 2018, the Board of Directors did not approve and implement the plan. The Company's Lithium Research and Pilot Plant Development Projects incurred costs of \$(1,543,597) during the quarter ended Q4-2019 as compared to

# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

### Results of Operations

#### *Three months ended June 30, 2019 compared to the three months ended June 30, 2018: - continued*

\$399,466 during Q2-2018. The decrease in cost relates a reclassification of the costs to Asset under construction at the year end of June 30, 2019. The Company incurred \$275,223 of cost associated with a preliminary economic assessment and \$80,079 of costs related to the patent applications.

#### *Year ended June 30, 2019 compared to the six months ended June 30, 2018:*

The Company incurred a net loss of \$8,578,841 for the year ended June 30, 2019 ("FY2019") compared to a net loss of \$3,745,091 for the six months ended June 30, 2018 transition year ("TY2018"). The primary reason for the increase in costs was the comparative period covered a 6 months transition year. Consulting fees increased to \$1,281,415 in FY2019, compared with \$329,843 in TY2018, due to increased activity with the expansion of the Arkansas Project and the preparation of the updated 43-101 and Preliminary Economic Assessment reports. Management fees increased to \$1,109,382 during FY2019 from \$481,674 incurred during TY2018 due to increases in fees for Management. Professional Fees of \$184,849 increased from \$76,994 during TY2018 due to higher legal and audit fees related to the completion of audit review during Q2-2019 and Q3-2019. Filing and transfer agent fees incurred during FY2019 where \$103,422 as compared to \$69,744 during, due to fees paid to the TSX Venture Exchange and the Nasdaq. Office and administration fees of \$242,302 during FY2019 were consistent with fees of \$104,129 incurred during TY2018. Corporate development, advertising and investor relations costs of \$5,000 and \$1,528,862 were incurred during FY2019 as compared to \$26,000 and \$451,736 during TY2018. Travel costs of \$246,827 were incurred during FY2019 compared to \$112,442 incurred during TY2018. These costs relate to flights, hotels, vehicle rental and meals for management when visiting existing projects and travel to meet with investors of the company. The share-based compensation during the period was \$3,325,915 as compared to \$1,488,695 during TY2018 as share-based compensation. The Company's Lithium Research and Pilot Plant Development Projects incurred costs of \$4,252 during FY2019 as compared to \$625,301 during TY2018. The increase in cost relates to the increase in consultants used to complete the data collection during the FY2019. During FY2019, the Company incurred \$329,715 of cost associated with a preliminary economic assessment and \$149,259 related to the patent applications.

### Summary of Quarterly Results

The following table presents selected unaudited consolidated financial information for the last eight quarters in accordance with IFRS, stated in Canadian dollars:

|                                | Jun 30,<br>2019<br>\$ | Mar 31,<br>2019<br>\$ | Dec 31,<br>2018<br>\$ | Sep 30,<br>2018<br>\$ | Jun 30,<br>2018<br>\$ | Mar 31,<br>2018<br>\$ | Dec 31,<br>2017<br>\$ | Sep 30,<br>2017<br>\$ |
|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Revenue for the Period         | -                     | -                     | -                     | -                     | -                     | -                     | -                     | -                     |
| Net (Loss)/Gain for the Period | (498,870)             | (1,880,795)           | (1,735,978)           | (4,463,198)           | 5,054,920             | (8,800,011)           | (5,951,916)           | (10,794,595)          |
| Basic & Diluted Loss per Share | (0.01)                | (0.02)                | (0.01)                | (0.06)                | (0.07)                | (0.13)                | (0.10)                | (0.20)                |

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Liquidity and Capital Resources

As of June 30, 2019, the Company had working capital of \$1,578,892 compared to a working capital of \$13,964,324 as of June 30, 2018. Cash and cash equivalents at June 30, 2019 totaled \$6,849,114 compared to \$13,513,182 at June 30, 2018. During the year ended June 30, 2019 the Company had net cash outflow of \$6,664,068.

On February 16, 2018, the Company closed a brokered private placement and issued 10,312,821 units of the Company at a price of \$2.10 per unit, for gross proceeds of \$21,656,924. Each unit consists of one common share of the Company and one-half of one common share purchase warrant. Each full warrant is exercisable to acquire one common share of the Company 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 common shares and granted 721,897 compensation options for one unit until February 16, 2020 at an exercise price of \$2.10 in conjunction with the private placement.

On May 1, 2018, the Company issued 200,000 common shares with a fair value of \$286,000 to National Chloride.

On May 29, 2018, the Company issued 200,000 common shares with a fair value of \$294,000 to TETRA Technologies, Inc.

During the period ended June 30, 2018, the Company issued a total of 214,216 common shares for the exercise of stock options. The Company received proceeds of \$218,500 and re-classified \$290,556 from Stock option reserve to Share capital upon exercise.

During the period ended June 30, 2018, the Company issued a total of 1,300,000 common shares for the exercise of share purchase warrants. The Company received proceeds of \$325,000 upon exercise.

On October 1, 2018, the Company issued 500,000 common shares with a fair value of \$840,000 to Nevada Alaska Mining Company Inc.

On October 23, 2018, the Company issued 200,000 common shares with a fair value of \$280,000 to TETRA Technologies, Inc.

On December 13, 2018, the Company issued 500,000 common shares with a fair value of \$475,000 in connection with the acquisition of 2661881 Ontario Limited and the intangible asset.

On March 21, 2019, the Company closed a broker short form prospectus financing and issued 11,390,500 units of the Company at a price of \$1.00 per unit, for gross proceeds of \$11,390,500. Each unit consists of one common share of the Company and one-half of one common share purchase warrant. Each full warrant is exercisable to acquire one common share of the Company at an exercise price of \$1.30 for a period of 36 months from the closing date (March 21, 2022). The Company paid underwriters' commission of \$570,685, issued 797,336 underwriter's warrants with a fair value of \$371,388 and incurred \$389,797 of additional share issuance costs to complete the financing. Each underwriter's warrant is exercisable to purchase an additional share at a price of \$1.00 per share for a period of 24 months from the closing date (March 21, 2021).

On April 10, 2019, the Company closed a non-brokered private placement and issued 426,000 units of the Company at a price of \$1.00 per unit, for gross proceeds of \$426,000. Each unit consists of one common share of the Company and one-half of one common share purchase warrant. Each full warrant is exercisable to acquire one common share of the Company at an exercise price of \$1.30 for a period of 3 years. The units were issued with a four month and one day hold period.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Liquidity and Capital Resources - continued

On May 1, 2019, the Company issued 200,000 common shares with a fair value of \$166,000 to National Chloride (See Note 4 of the June 30, 2019 audited consolidated financial statements).

On May 2, 2019, the Company issued 400,000 common shares with a fair value of \$340,000 to TETRA Technologies, Inc. (See Note 4 of the June 30, 2019 audited consolidated financial statements).

During the year ended June 30, 2019, the Company issued a total of 450,000 common shares for the exercise of share purchase warrants. The Company received proceeds of \$112,500 upon exercise.

Management has determined that the cash resources will be sufficient to continue operations in the short term but that additional funding will be required to sustain the Company's ongoing operations. As a result, the Company will continue to attempt to raise funds through equity or debt financing to meet its on-going obligations. There can be no certainty that such additional funds may be raised when required.

### Transactions with Related Parties

Key management personnel are persons responsible for planning, directing and controlling the activities of the entity, and include directors and officers of the Company.

Compensation to key management is comprised of the following:

|                                                                         | June 30,<br>2019    | June 30,<br>2018    |
|-------------------------------------------------------------------------|---------------------|---------------------|
| Non-Executive Chairman due to Paloduro Investments Inc.                 | \$ 87,500           | \$ -                |
| President and Chief Operating Officer due to Green Core Consulting Ltd. | 300,000             | 130,000             |
| Chief Executive Officer due to Rodhan Consulting & Management Services  | 300,000             | 130,000             |
| Director due to Anthony Alvaro or Varo Corp Capital Partners Inc.       | 240,000             | 100,000             |
| Chief Financial Officer due to Kara Norman                              | 102,600             | 40,913              |
| VP of Exploration due to Raymond Spanjers                               | 79,282              | 76,761              |
| Share-based payment                                                     | 2,102,790           | 4,938,417           |
|                                                                         | <b>\$ 3,212,172</b> | <b>\$ 5,416,091</b> |

As at June 30, 2019 there is \$161,843 (June 30, 2018: \$152,555) in accounts payable and accrued liabilities owing to officers of the Company.

These transactions are in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties, unless otherwise noted. Amounts due to/from the related parties are non-interest bearing, unsecured and have no fixed terms of repayment.

### Outstanding Share Data

Effective December 1, 2016, the Company completed a share consolidation on the basis of five existing common shares for one post-consolidation common share. All common share and per common share amounts in this report have been retroactively restated to reflect the share consolidation.

# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

### Outstanding Share Data - continued

The authorized capital of Standard consists of an unlimited number of common shares and preferred shares without par value.

As of the date of this report, there were 88,094,076 common shares issued and outstanding, 8,847,681 stock options and 14,886,996 warrants outstanding. Of the warrants outstanding, 3,025,000 are exercisable to acquire one common shares at \$0.25 expiring May 10, 2021, 5,156,411 are exercisable at \$2.60 per share, expiring on February 16, 2020, 6,564,925 are exercisable to acquire 1 common share at \$1.30 expiring February 21, 2022, 797,336 are exercisable to acquire 1 common share at \$1.00 expiring on March 21, 2021 and 213,000 are exercisable to acquire 1 common share at \$1.30 expiring on April 10, 2022.

Details of options outstanding and exercisable at the date of this report are as follows:

| Options Outstanding  |                     |                                                              | Options Exercisable                      |                       |                                          |
|----------------------|---------------------|--------------------------------------------------------------|------------------------------------------|-----------------------|------------------------------------------|
| Exercise Price<br>\$ | Number of<br>Shares | Weighted Average<br>Remaining<br>Contractual Life<br>(years) | Weighted Average<br>Exercise Price<br>\$ | Number<br>Exercisable | Weighted Average<br>Exercise Price<br>\$ |
| 1.05                 | 1,250,000           | 2.36                                                         | 1.05                                     | 1,250,000             | 1.05                                     |
| 0.96                 | 2,590,000           | 2.64                                                         | 0.96                                     | 2,590,000             | 0.96                                     |
| 1.02                 | 435,784             | 0.79                                                         | 1.02                                     | 435,784               | 1.02                                     |
| 2.10                 | 721,897             | 0.31                                                         | 2.10                                     | 721,897               | 2.10                                     |
| 2.10                 | 500,000             | 3.33                                                         | 2.10                                     | 500,000               | 2.10                                     |
| 1.21                 | 300,000             | 3.69                                                         | 1.21                                     | 300,000               | 1.21                                     |
| 1.40                 | 1,900,000           | 3.86                                                         | 1.40                                     | 1,900,000             | 1.40                                     |
| 1.00                 | 750,000             | 2.44                                                         | 1.00                                     | 750,000               | 1.00                                     |
| 1.00                 | 150,000             | 2.64                                                         | 1.00                                     | 150,000               | 1.00                                     |
| 0.83                 | 100,000             | 2.73                                                         | 0.83                                     | 100,000               | 0.83                                     |
| 0.75                 | 150,000             | 3.98                                                         | 0.75                                     | 150,000               | 0.75                                     |
|                      | 8,847,681           | 2.51                                                         | 1.24                                     | 8,847,681             | 1.24                                     |

### Off-Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors.

### Financial Instruments and Risk Management

The fair value of financial instruments is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act. Fair values are determined by reference to quoted market prices, as appropriate, in the most advantageous market for that instrument to which the Company has immediate access. In the absence of an active market, fair values are determined based on prevailing market rates for instruments with similar characteristics.

The fair value of current financial instruments approximates their carrying value as they are short term in nature.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Financial Instruments and Risk Management - continued

Financial instruments that are held at fair value are categorised based on a valuation hierarchy which is determined by the valuation methodology utilised:

Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 – inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is as prices) or indirectly (that is, derived from prices).

Level 3 – inputs for the asset or liability that are not based on observable market data (unobservable inputs).

There were no transfers between Levels 1, 2 or 3 for the periods ended June 30, 2019 and June 30, 2018.

The following table sets forth the Company's financial assets measured at fair value by level within the fair value hierarchy:

| June 30, 2019 | Level 1      | Level 2 | Level 3 | Total        |
|---------------|--------------|---------|---------|--------------|
| Cash          | \$ 6,849,114 | \$ -    | \$ -    | \$ 6,849,114 |

  

| June 30, 2018 | Level 1       | Level 2 | Level 3 | Total         |
|---------------|---------------|---------|---------|---------------|
| Cash          | \$ 13,513,182 | \$ -    | \$ -    | \$ 13,513,182 |

The Company's Board of Directors has the overall responsibility for the establishment and oversight of the Company's risk management framework. The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and in response to the Company's activities. Management regularly monitors compliance with the Company's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Company.

In the normal course of operations, the Company is exposed to various risks such as commodity, interest rate, credit, and liquidity risk. To manage these risks, management determines what activities must be undertaken to minimize potential exposure to risks. The objectives of the Company in managing risk are as follows:

- maintaining sound financial condition;
- financing operations; and
- ensuring liquidity to all operations.

In order to satisfy these objectives, the Company has adopted the following policies:

- recognize and observe the extent of operating risk within the business;
- identify the magnitude of the impact of market risk factors on the overall risk of the business and take advantage of natural risk reductions that arise from these relationships.

(i) Interest rate risk

The Company does not have any financial instruments which are subject to interest rate risk.

(ii) Credit risk

Credit risk is the risk of loss if counterparties do not fulfill their contractual obligations and arises principally from trade receivables. The Company does not have any other financial instruments which are subject to credit risk.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Financial Instruments and Risk Management - continued

#### (iii) Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. The Company manages this risk by careful management of its working capital to ensure its expenditures will not exceed available resources. As at June 30, 2019, the Company has a working capital surplus of \$1,578,892.

#### (iv) Foreign Exchange Risk

Currency risk is the risk to the Company's earnings that arises from fluctuations of foreign exchange rates and the degree of volatility of these rates. The Company does not use derivative instruments to reduce its exposure to foreign currency risk. The Company is exposed to currency risk through the following assets and liabilities denominated in US dollars:

|                  | June 30, 2019 | June 30, 2018 |
|------------------|---------------|---------------|
| Cash             | \$ 248,860    | \$ 88,007     |
| Accounts payable | (4,509,929)   | (407,421)     |

At June 30, 2019, US Dollar amounts were converted at a rate of USD 1.00 to CAD 1.3087. A 10% increase or decrease in the US Dollar relative to the Canadian Dollar would result in a change of approximately \$476,000 in the Company's comprehensive loss for the year.

### Non-Cash Transactions

| Non-cash Financing and Investing Activities                          | June 30,<br>2019<br>\$ | June 30,<br>2018<br>\$ |
|----------------------------------------------------------------------|------------------------|------------------------|
| Shares issued for exploration and evaluation assets                  | 1,626,000              | 580,000                |
| Shares issued for finder's fees                                      | -                      | 609,486                |
| Shares issued for intangible asset                                   | 475,000                | -                      |
| Shares issuable for intangible asset                                 | 475,000                | -                      |
| Exploration and evaluation expenditures included in accounts payable | 166,064                | 309,312                |

### Commitments

On November 1, 2017, the company entered into a commercial property lease that will expire on October 31, 2020. The future minimum rental payments under the non-cancelable operating lease as at June 30, 2019:

|      | Period ended<br>June 30,<br>2019 |
|------|----------------------------------|
| 2020 | \$ 100,475                       |
| 2021 | 33,492                           |
|      | \$ 133,967                       |

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Recent Accounting Pronouncements

Accounting standards issued, but not effective, up to the date of issuance of the Company's consolidated financial statements are listed below. This listing of standards and interpretations issued are those that the Company reasonably expects to have an impact on disclosures, financial position or performance when applies at a future date. The company intends to adopt these standards when they become effective.

### New accounting standards effective for annual periods on or after January 1, 2019

#### *IFRS 16 Leases*

IFRS 16 was issued in January 2016 and specifies how a company will recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with the approach to lessor accounting substantially unchanged from its predecessor, IAS 17. The Company is currently finalizing the impact of IFRS 16 on its consolidated financial statements. As at July 1, 2019, it is estimated that total liabilities would increase by \$118,000 and assets would increase by approximately \$118,000. The Company is continuing to assess the overall impact of the new standard, including the required changes to the disclosures in its consolidated financial statements.

#### *IFRIC 23 Uncertainty over Income Tax Treatments*

IFRIC 23, Uncertainty over Income Tax Treatments, provides guidance on the accounting for current and deferred tax liabilities and assets in circumstances in which there is uncertainty over income tax treatments. The Interpretation is applicable for annual periods beginning on or after June 1, 2019. Earlier application is permitted. The Interpretation requires: (a) an entity to contemplate whether uncertain tax treatments should be considered separately, or together as a group, based on which approach provides better predictions of the resolution; (b) an entity to determine if it is probable that the tax authorities will accept the uncertain tax treatment; and (c) if it is not probable that the uncertain tax treatment will be accepted, measure the tax uncertainty based on the most likely amount or expected value, depending on whichever method better predicts the resolution of the uncertainty. The adoption of this standard is not expected to have a material effect on the Company's future results and financial position.

### 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. Additional risk factors may be included in technical reports 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 operations, plans and prospects.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### 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 mining personnel as well as additional operations staff. 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 stage 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

The Company anticipates that it will make substantial capital expenditures for the continued exploration and development of the California Lithium Project and the Arkansas Lithium Project in the future. The Company currently has no revenue and may have limited ability to undertake or complete future drilling or exploration programs, chemical studies and the design of a surface plant and processing facilities. 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 Common Shares in the public markets, or the potential for such sales, could decrease the trading price of the Common Shares and could impair the Company's ability to raise capital through future sales of Common 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 one or more of its Properties. 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. 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.

#### 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.

#### 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

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### Exploration and Development - continued

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 being extracted or dedicated to future production. Until actually extracted and processed, the quantity of lithium brine reserves and grade must be considered as estimates only. In addition, the quantity of reserves may vary depending on commodity prices. 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 will be duplicated in larger scale tests under on-site conditions or during production. The Company may also be subjected to risks associated with fluctuations in markets other than lithium (e.g. bromine) that may impact project development feasibility. 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 pollution, accidents or spills, industrial and transportation accidents, which may involve hazardous materials, labour 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, all of which could 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.

#### 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.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### Environmental Risks - continued

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.

The Company's development opportunities at the California Lithium Project are subject to potential future risks related to water-use considerations. Desert basins, by their very nature, have limited water resources, and future supplemental demands can result in conflicting requirements for those resources. Future negotiation and apportioning of water resources has the potential to adversely affect the Company's operations or prospects.

#### Commodity Price Fluctuations

The price of commodities varies on a daily basis. However, price volatility could have dramatic effects on the results of operations and the ability of the Company to execute its business plan. Lithium is a specialty chemical and is not a commonly traded commodity such as copper, zinc, gold or iron ore. However, the price of lithium tends to be set through a limited long term offtake market contracted between the very few suppliers and purchasers.

The world's largest suppliers of lithium are Sociedad Quimica y Minera de Chile S.A (NYSE:SQM), FMC Corporation (NYSE:FMC), Albemarle Corporation (NYSE:ALB), Jiangxi Ganfeng Lithium Co., Ltd. and Tianqi Group who collectively supply approximately 85% of the world's lithium business, and any attempt to suppress the price of lithium materials by such suppliers, or an increase in production by any supplier in excess of any increased demand, would have negative consequences on the Company. 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.

#### Volatility of the Market Price of the Company's Common Shares

The Company's common shares are listed on the TSX.V under the symbol "SLL", on the Frankfurt Stock Exchange under the trading symbol "S5L" and, on the OTCQX under the trading symbol STLHF. The quotation of Standard Lithium Common Shares on the TSX.V may result in a less liquid market available for existing and potential stockholders to trade Common Shares, could depress the trading price of our common stock and could have a long-term adverse impact on our ability to raise capital in the future.

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/globally and market perceptions of the attractiveness of particular industries. The Company's Common Share price is also likely to be significantly affected by delays experienced in progressing our development plans, a decrease in the investor appetite for junior stocks, or in adverse changes in our financial condition or results of operations as reflected in our quarterly financial statements. Other factors unrelated to our performance that could have an effect on the price of the Company's Common Shares include the following:

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### Volatility of the Market Price of the Company's Common Shares - continued

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

As a result of any of these factors, the market price of the Company's Common Shares at any given point in time might not accurately reflect the Company's long-term value. Securities class action litigation often has been brought against companies following periods 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.

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

In order to finance future operations, the Company may raise funds through the issuance of additional Common Shares or the issuance of debt instruments or other securities convertible into Common Shares. The Company cannot predict the size of future issuances of Common Shares or the issuance of debt instruments or other securities convertible into Common 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 Common Shares.

#### Economic and Financial Market Instability

Global financial markets have been volatile and unstable at times since the global financial crisis, which started 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, on terms that are favourable 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 has 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 its 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.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### 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 its current properties, or any other properties in which the Company has an interest. A specific risk is that no royalty structure relating to the commercial extraction of lithium from brine is currently present in the State of Arkansas. The future derivation of a royalty that is excessively elevated may have significant negative effects on the Company. 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, government-protected areas (e.g. National Wilderness Protected Areas, Military Ranges etc.) 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 period 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.

#### 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 commodities such as Lithium, 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.

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### Properties May be Subject to Defects in Title

The Company has investigated its rights to explore and exploit the California Lithium and Arkansas Lithium Projects and, to the best of its knowledge, its rights in relation to lands forming those 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 Properties, 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.

#### 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. The Company is currently operating under a working capital deficiency, and requires additional financing to ensure it can continue to maintain a positive working capital position. 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

All industries, including the mining industry, are subject to legal claims, with and without merit. Defense and settlement costs of legal claims can be substantial, even with respect to claims that have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal proceeding to which the Company may become subject could have a material adverse effect on the Company's business, prospects, financial condition, and operating results. Defense and settlement of costs of legal claims can be substantial. There are no current claims or litigation outstanding against the Company.

#### 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, labour 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

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# STANDARD LITHIUM LTD.

## Management's Discussion and Analysis

For the Year Ended June 30, 2019

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### Risk Factors – continued

#### Insurance - continued

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.

#### Currency

The Company is exposed to foreign currency fluctuations to the extent that the Company's material mineral properties are located in the US and its expenditures and obligations are denominated in US dollars, yet the Company is currently headquartered in Canada, is listed on a Canadian stock exchange and typically raises funds in Canadian dollars. In addition, a number of the Company's key vendors are based in both Canada and the US, including vendors that supply geological, process engineering and chemical testing services. As such, the Company's results of operations are subject to foreign currency fluctuation risks and such fluctuations may adversely affect the financial position and operating results of the Company. The Company does not currently, and it is not expected to, take any significant steps to hedge against currency fluctuations.

#### 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.