

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR  
15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of October 2025

Commission File Number: 001-40786

**Sigma Lithium Corporation**  
(Translation of registrant's name into English)

**181, Bay Street, Suite 4400**  
**Toronto, Ontario, M5J 2T3, Canada**  
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F [ ] Form 40-F [ X ]

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EXHIBIT INDEX

<u>Exhibit</u>	<u>Description</u>
<a href="#">99.1</a>	<a href="#">Press release dated October 6, 2025.</a>

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Sigma Lithium Corporation  
(Registrant)

Date: October 6, 2025



Ana Cristina Cabral Gardner  
Chief Executive Officer

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## SIGMA LITHIUM RECOGNIZED FOR SUSTAINABILITY EXCELLENCE BY ITAUSA/ARAPYAU FOUNDATIONS; UPGRADES MINING OPERATIONS TARGETING HIGHER EFFICIENCY

**SÃO PAULO, Oct. 6, 2025** - Sigma Lithium Corporation (TSXV/NASDAQ: SGML, BVMF: S2GMB4), a leading global lithium producer dedicated to powering the next generation of electric vehicles with carbon neutral, socially and environmentally sustainable lithium concentrate, announces today that it was included as a case study in a key industry report.

### RECOGNITION FOR SUSTAINABILITY EXCELLENCE

The report “Climate and Nature Solutions in Brazil” was published by (i) Instituto Itausa, an organization dedicated to financing and supporting initiatives that promote sustainable development in Brazil, which is part of the Brazilian Itausa industrial conglomerate; and (ii) Instituto Arapyau, a Brazilian philanthropic organization founded by Guilherme Leal, a major shareholder of the Brazilian cosmetics company Natura and a former presidential candidate for the “Green Coalition” with Marina Silva, current Minister of The Environment and Climate Change of Brazil.

The study recognized Sigma Lithium for excellence in sustainability as a “*global reference in green lithium, with 100% renewable energy, 90% water recirculation, no use of tailings dams, dry processing and gravity separation*” which is “*a method summarized in the “Quintuple Zero” formula (that is, the effort to produce lithium without dams, chemicals, carbon emissions, fossil energy and water consumption).*”

The report mentioned Sigma Lithium as having successfully adapted “*traditional iron and bauxite mining practices to a lithium mine, with international recognition for its ESG practices.*” The report further added that Sigma Lithium “*invests in reforestation and compensation programs in the Cerrado (Brazilian scrubland) areas, planting native species. This model is aimed at creating ecological corridors and promoting social inclusion in environmental restoration, integrating biodiversity and generation of income.*”

### UPGRADES MINING OPERATIONS TARGETING HIGHER EFFICIENCY

Sigma Lithium also announces that the Company is upgrading its mining operations to increase its efficiency and competitiveness: mining operations are responsible for over 66% of Sigma Lithium’s “plant gate costs”, while industrial operations represent just 33% (one of the most efficient in the lithium industry).

The upgrade is part of a comprehensive review of mining operations that commenced after significant improvements were executed in the Greentech industrial plant in 4Q24. The improvements increased the plant’s recovery rates and demonstrated that it would be possible to further unlock production capacity if the plant operated at a constant rate. This operational cadency could be achieved by reducing the fluctuations in the rate of delivery of fresh ore from the mining operations. Improved ore cadence is now expected to increase production at the industrial Greentech plant, while decreasing overall plant gate costs by approximately 20%.

The execution of the upgrade, which will include a change in suppliers, was initially planned for Phase 2, but the Company decided that it should be started earlier, during 3Q25, in response to the decline in lithium prices from April to August 2025 and to extend Sigma Lithium’s stellar health and safety standards to the mining operations. The Company aims to bridge the gap between the safety record of the mining operations and that of the industrial Greentech plant, which is excellent and one of the factors that determine Sigma Lithium’s leadership in sustainability. At the end of the second quarter of 2025, the industrial Greentech plant accumulated **more than 2 years (735 days) without Lost Time Injury (LTI) and zero fatalities**, positioning it amongst the safest operations according to the International Council of Metals and Mining (ICMM).



As part of the upgrade, Sigma Lithium will be replacing its mining equipment. A demobilization was started last week, and a re-mobilization is planned to commence this week, when the new supplier is expected to promptly restart activities. The amount of downtime required for the switch and the resulting loss of production is being kept to a minimum, while the targeted efficiency gains are on track to being achieved: mining equipment is being modernized with an increase in the size of mining trucks, which will enable a decline in the size of the overall fleet and a reduction of traffic at the mine, enhancing mine safety.

In addition to raising production capacity, the upgrade should prepare Sigma Lithium’s mine to feed a second Greentech plant more rapidly by improving mine geometry, which will help the Company deliver its planned capacity expansion scheduled to come onstream in 2026.

### ENGAGED IN HIGH LEVEL GLOBAL ENERGY TRANSITION DIALOGUES AT CLIMATE WEEK NY

Sigma Lithium’s participation highlights its leadership in aligning private capital with public policy to deliver sustainable mineral supply chains for the energy transition and contribute to global decarbonization goals.

The Company’s team, led by Ana Cabral, Co-Chair and CEO, and Daniel Abdo, VP of Business Development and International Affairs, played an active role in several high-level forums, as part of a continuing commitment to participate in events related to the energy transition and promote the development of the Jequitinhonha Valley, underscoring its mission to power the energy transition with environmentally and socially responsible practices:

- Sigma Lithium joined the **United Nations Energy Forum** meetings, with leaders and experts from governments, international organizations, businesses, and youth groups around the world. The event was convened by **UN-Energy** on the margins of the UN General Assembly High-Level Week. Participants strategized how best to scale up innovative solutions and mobilize resources and partnerships on long-standing issues with the aim of accelerating progress towards Sustainable Development Goal 7 (clean and affordable energy for all) and a net-zero future. Also launched at the Forum, was a policy brief on linkages between clean energy for all (SDG7) and employment and economic growth (SDG8), presented by the International Renewable Energy Agency (IRENA); as well as a policy brief on a just energy transition in least developed and landlocked developing countries.
- Our Co-Chair and CEO, Ana Cabral, attended **Nasdaq’s “Building the Future Summit”**, where global industry leaders from the world’s largest companies and investors, such as Microsoft, Google, ENEC-UAE and Global Infrastructure Partners, discussed themes such as the requirements to scale energy infrastructure, including battery storage, to supply clean power for data centers to support the growth of AI.

- Ana Cabral, as a former CNBC Changemaker, was invited to join the **CNBC Connect Dinner**, hosted by Melissa Lee and featuring Joseph Lavorgna, Counselor to Treasury Secretary Scott Bessent, where discussions centered on how public and private sectors can foster a more sustainable economy and harness technology to drive global collaboration.
- Daniel Abdo participated in a series of events at Bloomberg, including the roundtable “**Scaling Financial Mechanisms to Support Bankable Climate Projects**” and “**Sustainable Business COP**”, organized by Brazil’s Industry Confederation (CNI), keynoted by Michael Bloomberg and Andre Correa do Lago, Incoming President of COP30.
- Ana Cabral contributed to the roundtable “**The Future of Global Energy Transition in Turbulent Times**,” organized by Columbia University’s Center for Global Energy Policy (CGEP), ReNew, and the Boston Consulting Group, sharing insights on the evolving dynamics of critical minerals in the global energy transition.
- She also participated in the **CGEP–World Economic Forum** session, “Public Policy Playbook for Financing Critical Minerals,” addressing how innovative financing models can align with responsible mineral resource development and processing.



- Sigma Lithium was represented in the “**Building Common Ground on Climate and Trade**” dialogue, convened by Columbia SIPA’s Center on Global Energy Policy and the Government of Brazil, which featured a conversation between André Corrêa do Lago and Jason Bordoff, Founding Director of CGEP, alongside international policymakers, exploring cooperative approaches at the nexus of climate and trade.
- Daniel Abdo was also present at the roundtable “**Defining the Mining Transition Agenda: Pathways to COP30**,” an initiative of the Future of Mining Coalition, which examined how the mining sector can align with the global climate agenda, advance sustainable supply chains, and support a successful COP30 in Brazil, reinforcing Sigma Lithium’s alignment with international pathways for decarbonization and inclusive development.
- The Company further joined the **Youth Mutirão on the Road to COP30 Reception**, co-hosted by the COP29 and COP30 Presidency Youth Climate Champions together with the UN Youth Office and the Youth Climate Justice Fund, supporting a space for youth leadership, cultural exchange, and dialogue on inclusive climate action.
- The Company also attended in the **Brazil Climate Summit at Columbia University**, where Brazil’s positioning ahead of COP30 was debated among government representatives, experts, and business leaders.

Sigma Lithium representatives were also engaged in other events. They took part in sessions at Nasdaq headquarters focused on private-sector leadership in climate and sustainability and joined the Valor Economico Climate Week Forum, which engaged policymakers and financial leaders on the intersection of sustainable finance and critical minerals.

*“At Climate Week NY, we see clearly how the worlds of finance, policy, and industry are converging around the urgency of the energy transition. Brazil’s experience shows that it is possible to combine responsibility with scale, and that sustainable resource development can become a catalyst for inclusive growth. Sigma Lithium is proud to be part of this global dialogue as we prepare for COP30 in Brazil,”* said Ana Cabral, Co-Chair and CEO of Sigma Lithium.

Through these engagements, Sigma Lithium strengthened its dialogue with multilateral institutions, policymakers, investors, and civil society, reaffirming its position as a trusted partner in building a more sustainable, inclusive, and socially responsible energy future. The company looks ahead to continuing this dialogue at COP30 in Belém, Brazil, further advancing collaborative solutions for the global energy transition.

## ABOUT SIGMA LITHIUM

Sigma Lithium (NASDAQ: SGML, TSXV: SGML, BVMF: S2GM34) is a leading global lithium producer dedicated to powering the next generation of electric vehicle batteries with carbon neutral, socially and environmentally sustainable chemical-grade lithium concentrate.

The Company operates one of the world’s largest lithium production sites—the fifth-largest industrial-mineral complex for lithium oxide—at its Grota do Cirilo Operation in Brazil. Sigma Lithium is at the forefront of environmental and social sustainability in the electric vehicle battery materials supply chain, producing Quintuple Zero Green Lithium: made with zero carbon, zero coal power, zero tailings dams, zero utilization of potable water and zero use of hazardous chemicals.

Sigma Lithium currently produces 270,000 tonnes of lithium oxide concentrate on an annualized basis (approximately 38,000–40,000 tonnes of LCE) at its state-of-the-art Greentech Industrial Lithium Plant. The Company is now constructing a second plant to double production capacity to 520,000 tonnes of lithium oxide concentrate (approximately 77,000–80,000 tonnes of LCE).

For more information about Sigma Lithium, visit our website (<https://sigmalithiumresources.com/>)



## FOR ADDITIONAL INFORMATION PLEASE CONTACT

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## FORWARD-LOOKING STATEMENTS

*This news release includes certain “forward-looking information” under applicable Canadian and U.S. securities legislation, including but not limited to statements relating to timing and costs related to the general business and operational outlook of the Company, the environmental footprint of tailings and positive ecosystem impact relating thereto, donation and upcycling of tailings, timing and quantities relating to tailings and Green Lithium, achievements and projections relating to the Zero Tailings strategy, achievement of ramp-up volumes, production estimates and the operational status of the Grota do Cirilo Project, and other forward-looking information. All statements that address future plans, activities, events, estimates, expectations or developments that the Company believes, expects or anticipates will or may occur is forward-looking information, including statements regarding the potential development of mineral resources and mineral reserves which may or may not occur. Forward-looking information contained herein is based on certain assumptions regarding, among other things: general economic and political conditions; the stable and supportive legislative, regulatory and community environment in Brazil; demand for lithium, including that such demand is supported by growth in the electric vehicle market; the Company's market position and future financial and operating performance; the Company's estimates of mineral resources and mineral reserves, including whether mineral resources will ever be developed into mineral reserves; and the Company's ability to operate its mineral projects including that the Company will not experience any materials or equipment shortages, any labour or service provider outages or delays or any technical issues. Although management believes that the assumptions and expectations reflected in the forward-looking information are reasonable, there can be no assurance that these assumptions and expectations will prove to be correct. Forward-looking information inherently involves and is subject to risks and uncertainties, including but not limited to that the market prices for lithium may not remain at current levels; and the market for electric vehicles and other large format batteries currently has limited market share and no assurances can be given for the rate at which this market will develop, if at all, which could affect the success of the Company and its ability to develop lithium operations. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether because of new information, future events or otherwise, except as required by law. For more information on the risks, uncertainties and assumptions that could cause our actual results to differ from current expectations, please refer to the current annual information form of the Company and other public filings available under the Company's profile at [www.sedarplus.com](http://www.sedarplus.com).*

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