

Sigma Lithium Files Ni 43-101 Technical Report For Production Expansion Supporting The Previously Announced 60% Increase In Mineral Reserves And Us\$ 15.3 Billion Npv

20.01.2023 | [CNW](#)

● Sigma Lithium reports that it has filed a Production Expansion Technical Report with the preliminary feasibility study supporting and validating the news release dated December 4, 2022 as follows:					● Significant potential increase in mineral reserves (36,700 tpa LCE) commencing in 2026 ("Project").					● After-tax NPV of \$15.3 billion and Phase 1 capital expenditures of \$1.1 billion.				
● At the expanded capacity of the project, the key metrics and assumptions are as follows:					● An approximate 60% increase in mineral reserves compared to the previous estimate of 73,000 Mt of measured and inferred mineral reserves.					● The Project is expected to produce 54.8 Mt of high-purity lithium carbonate over the 14-year life of the project.				
Key Metrics & Assumptions					Average Annual									
Average Grade Sustainable Lithium Production (t)					277,000					768,200				
Average In Sustainable Cash Costs CIF China (per tonne)					\$458					\$539				
Financial Metrics					Average Annual (US\$M)									
Gross Revenue					\$1,599					\$3,620				
After-Tax Earnings					\$1,233					\$2,682				
% After-Tax Earnings Margin					79 %					76 %				

VANCOUVER, Jan. 19, 2023 - SIGMA [Lithium Corp.](#) ("Sigma Lithium" or the "Company") (NASDAQ: SGML, TSXV: SGL) dedicated to powering the next generation of electric vehicles with environmentally and socially sustainable high-purity lithium reports that it has filed a technical report titled "Grota do Cirilo Lithium Project Araçuaí and Itinga Regions, Minas Gerais, Brazil: Updated Technical Report" (the "Production Expansion Technical Report") outlining preliminary feasibility study supporting the news release dated December 4, 2022.

Refer to Tables 1 to 3 below for additional details regarding the economic results and updated mineral reserve and resource estimates of the Production Expansion Technical Report.

Table 1: Combined Project Economic Analysis

Base Case	5.5% Li ₂ O
Economic Analysis	
After-Tax Net Present Value (@ 8% Discount Rate)	US\$15.3 Billion
Payback Period	1 month
Revenues, Cash Flow and Capex	
Project Operating Life	13 years
Battery Grade Sustainable Lithium Run-Rate Production	766,000 tpa
Lithium Carbonate Equivalent Run-Rate Production	104,200 tpa LCE
Average Annual Revenue During Project Operating Life	US\$2.5 Billion
Average Annual After-Tax Free Cash Flow During Project Operating Life	US\$1.8 Billion
Costs per tonne of Lithium Concentrate	
Total Cash Cost at Production	US\$401/t
All-in Sustaining Cost (CIF China)	US\$523/t
Phase 1 Lithium Recovery Rate (DMS)	65.0 %
Phase 2 Lithium Recovery Rate (DMS)	57.9 %
Phase 3 Lithium Recovery Rate (DMS)	50.6 %
Integrated Costs (per tonne of lithium concentrate)	
Mining costs	US\$215/t
Greentech Plant Processing costs	US\$53/t
G&A costs	US\$22/t
Transportation costs (Mine to CIF China)	US\$120/t
Spodumene Ore Mined Feedstock for Greentech Plant	
Total quantity mined (plant feed)	54.8 Mt
Annual average run of mine (ROM) plant feed during Project Operating Life	4.2 Mtpa

Table 2: Updated Consolidated Project Mineral Reserves

Consolidated Project Mineral Reserves				
Cut-off Grade	Category	Tonnes	Grade	Contained
(% Li ₂ O)		(Mt)	(% Li ₂ O)	LCE (kt)
0.5 %	Proven	27.4	1.44 %	979
0.5 %	Probable	27.3	1.43 %	962
0.5 %	Proven & Probable	54.8	1.44 %	1,941

Note:	
1.	Mineral Reserves were estimated using Geovia Whittle 4.3 software and following the economic parameters listed below:
2.	Sale price for Lithium concentrate at 6% Li ₂ O = US\$1,500/t concentrate FOB Mine (Xuxa and Barreiro); US\$3,500/t concentrate FOB Mine (NDC).
3.	Mining costs: US\$2.20/t mined (Xuxa); US\$2.19/t (Barreiro); US\$2.43/t mined (NDC).
4.	Processing costs: US\$10.7/t ore milled (Xuxa, Barreiro and NDC).
5.	G&A: US\$4.00/t ROM (run of mine) (Xuxa, Barreiro and NDC).
6.	Exchange rate US\$1.00 = R\$5.00 (Xuxa and Barreiro); R\$5.30 (NDC).
7.	Mineral Reserves are the economic portion of the Measured and Indicated Mineral Resources.
8.	82.5% Mine Recovery and 3.75% Mine Dilution (Xuxa); 95% Mine Recovery and 3% Mine Dilution (Barreiro); 94% Mine Recovery and 3% Mine Dilution (NDC)
9.	Final slope angle: 34° to 72° (Xuxa); 35° to 55° (Barreiro); 35° to 52° (NDC) based on Geotechnical Document presented in Section 16.
10.	Strip Ratio = 16.6 t/t waste/mineral reserve (NDC); 12.5 t/t waste/mineral reserve (NDC); 16.0 t/t waste/mineral reserve (NDC).
11.	Mineral Reserves have been classified using the 2014 CIM Definition Standards. The Qualified Person for the estimate is Porfírio Cabaleiro Rodriguez, BSc. (MEng), FAIG, an employee of GE21.
12.	The estimate of Mineral Reserves may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

Table 3: Updated Consolidated Project Mineral Resources

Updated Consolidated Project Mineral Resources				
Cut-off Grade	Category	Tonnes	Grade	Contained
(% Li ₂ O)		(Mt)	(% Li ₂ O)	LCE (kt)
0.5 %	Measured	37.1	1.43 %	1,312
0.5 %	Indicated	39.9	1.43 %	1,411
0.5 %	Measured & Indicated	77.0	1.43 %	2,723
0.5 %	Inferred	8.6	1.43 %	304

Note:	
1.	Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Inferred mineral resources are exclusive of the Measured and Indicated resources.
2.	Mineral Resources have an effective date of October 31, 2022 and have been classified using the 2014 CIM Definition Standards. The Qualified Person for the estimate is Mr. Marc-Antoine Laporte, P.Geo., an SGS Canada employee.
3.	Mineral Resources are reported assuming open pit mining methods, and the following assumptions: lithium concentrate (6% Li ₂ O) price of US\$1,500/t, mining costs of US\$2.20/t for mineralization and waste, crushing and processing costs of US\$10.70/t, general and administrative (G&A) costs of US\$4.00/t, metallurgical DMS recovery of 60%, 2% royalty payment, pit slope angles of 55°, and an overall cut-off grade of 0.5% Li ₂ O.
4.	All Resources are presented undiluted and in situ, constrained by continuous 3D wireframe models, and are considered to have reasonable prospects for eventual economic extraction.
5.	Tonnages and grades have been rounded in accordance with reporting guidelines. Totals may not sum due to rounding.
6.	The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
7.	Mineral Resources are inclusive of Mineral Reserves

The Updated Technical Report is available on SEDAR (www.sedar.com), EDGAR (www.sec.gov) and the Company's corporate website. The Updated Technical Report was issued on January 16, 2023. The Updated Technical Report was prepared for Sigma Lithium by: Homero Delboni Jr., MAusIMM, Promon Engenharia; Marc-Antoine Laporte, P.Geo, SGS Canada Inc; Jarrett Quinn, P.Eng., Primero Group Americas; Porfirio Cabaleiro Rodriguez, (MEng), FAIG, GE21 Consultoria Mineral; and Noel O'Brien, B.E., MBA, F AusIMM.

QUALIFIED PERSONS

The technical and scientific information related to geology and mineral resource estimates in this news release has been reviewed and approved by Marc-Antoine Laporte P.Geo., M.Sc., of SGS. Mr. Laporte is a Qualified Person as defined by National Instrument 43-101 and is independent of Sigma Lithium.

The mining and mineral reserve estimates in this news release have been reviewed and approved by Porfirio Cabaleiro Rodriguez P.Eng, Mining Engineer of GE21 Consultoria Mineral Brazil. Mr. Rodriguez is a Qualified Person as defined by National Instrument 43-101 and is independent of Sigma Lithium.

The financial information in this news release has been reviewed and approved by Noel O'Brien B.E., MBA, F AusIMM, who is a Qualified Person as defined by National Instrument 43-101 and is independent of Sigma Lithium.

ABOUT SIGMA LITHIUM

Sigma Lithium (NASDAQ: SGML, TSXV: SGML) is a company dedicated to powering the next generation of electric vehicle batteries with environmentally sustainable and high-purity lithium.

Sigma Lithium has been at the forefront of environmental and social sustainability in the EV battery materials supply chain and it is currently commissioning its wholly owned Grota do Cirilo Project in Brazil. The Project is expected to produce 766,000 tonnes annually (or 104,200 LCE annually) of battery grade sustainable lithium concentrate in a state of the art Greentech lithium plant that uses 100% renewable energy, 100% recycled water and 100% dry-stacked tailings.

For more information about Sigma Lithium, visit <https://www.sigmalithiumresources.com/>

Sigma Lithium
Sigma Lithium
@sigmalithium
@SigmaLithium

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 delivery of additional incremental production at varying grades, NPV, IRR and payback estimates, operating and capital cost estimates, all estimates and assumptions relating to the economic analysis and financial summary including but not limited to revenue and production estimates, operating life, plant recoveries and feedstock estimates, lithium prices, mineral resource and mineral reserve estimates (including the estimates used in preparing the mineral reserve and resource estimates) and the general business and operational outlook of the Company; 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 (including but not limited to the impact of the continuance or escalation of the military conflict between Russia and Ukraine, and economic sanctions in relation thereto); the stable and supportive legislative, regulatory and community environment in the jurisdictions where the Company operates; the ability to obtain required financing on acceptable terms; anticipated trends and effects in respect of the COVID-19 pandemic and post-pandemic; 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 develop and achieve production at its mineral projects. 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 Company may not develop its mineral projects into a commercial mining operation; 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.sedar.com.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release.

View original content to download

multimedia:[https://www.prnewswire.com/news-releases/sigma-lithium-files-ni-43-101-technical-report-for-production-exp](https://www.prnewswire.com/news-releases/sigma-lithium-files-ni-43-101-technical-report-for-production-expansion-supporting-the-previously-announced-2025-2026-production-expansion-program)

SOURCE Sigma Lithium

Contact

CONTACTS: FOR ADDITIONAL INFORMATION PLEASE CONTACT: Jamie Flegg, Chief Development Officer, (Toronto) +1 (416) 219-6475, jamie.flegg@sigmaca.com; James Neal-Ellis, Vice President, Corporate Development & Investor Relations, (Toronto) +1 (416) 219-6475, james.nealellis@sigmaca.com

Dieser Artikel stammt von [Rohstoff-Welt.de](https://www.rohstoff-welt.de)

Die URL für diesen Artikel lautet:

<https://www.rohstoff-welt.de/news/433373--Sigma-Lithium-Files-Ni-43-101-Technical-Report-For-Production-Expansion-Supporting-The-Previously-Announced-2025-2026-Production-Expansion-Program>

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm angegebenen Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in diesem Artikel stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenrechte. Beachten Sie bitte auch unsere [AGB/Disclaimer!](#)

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!

Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2025. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).