



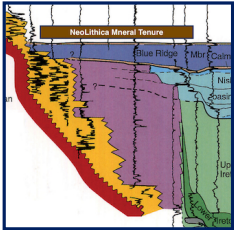
Alberta Lithium Production

Leading the Clean Energy Transition

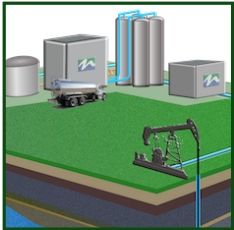
Corporate Presentation | November 2022

NEOLITHICA DEVELOPMENT HIGHLIGHTS

Development Features



609,047 ha of mineral permits in northern Alberta, overlying porous and permeable aquifers capable of delivering substantial volumes of lithium-rich brine



Strategic joint ventures with LiEP Resources and waterStrider Treatment, DLE companies with leading-edge technologies capable of economic extraction and refining of lithium

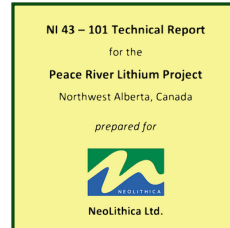


Substantial upside potential with NeoLithica's pre-money valuation at \$5.1M compared to its peers – Prairie Lithium (\$55M), E3 Lithium (\$130M), and LithiumBank (\$30M)

Development Catalysts



Demonstration Pilots will optimize lithium extraction of Alberta brines, and produce battery-grade lithium samples to secure supply off-take contracts



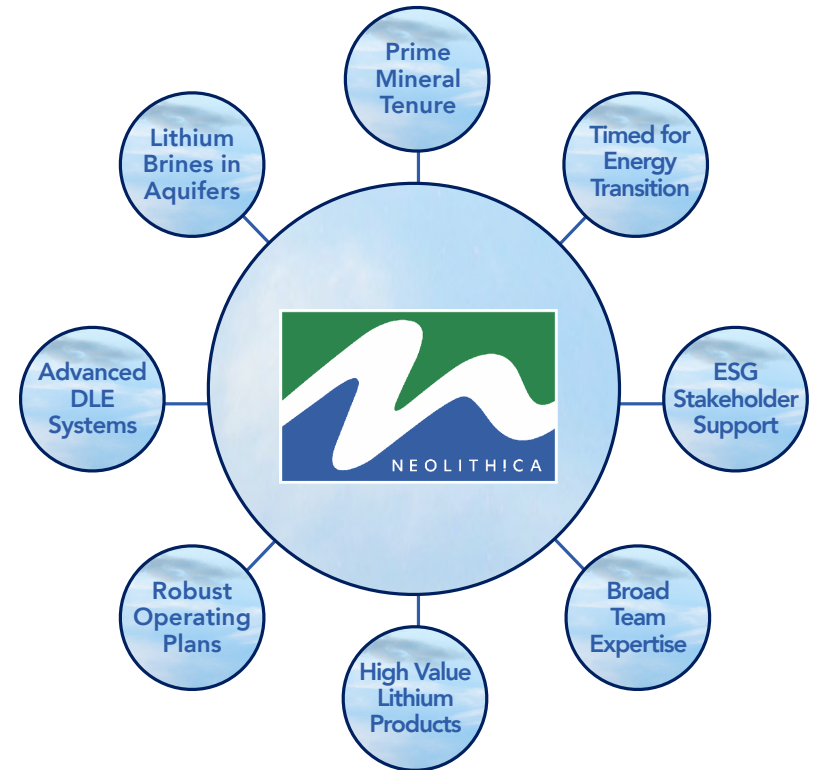
An updated NI 43-101 technical report with an inferred lithium resource is anticipated to place NeoLithica as one of the top-tier lithium resource companies in Alberta



Peace River Project will create good jobs, and generate significant tax and royalty revenues for all levels of government that will benefit local communities

ABOUT NEOLITHICA LTD.

- Private Alberta corporation headquartered in Calgary, Alberta
- Owns 609,047 hectares (2,352 mi²) of metallic and industrial mineral rights in northern Alberta, featuring well-developed infrastructure and population centres
- Lithium brines are contained in well-defined Devonian reefs, platform carbonates, and clastics that can deliver significant volumes of lithium-rich brines
- Assembled a team of partners and industry professionals that possess broad experience in all aspects of resource development and application of leading-edge technology
- Collaborations with direct lithium extraction (“DLE”) technology companies including LiEP Resources (a subsidiary of Conductive Energy), a developer of patented lithium refining processes, and waterStrider Treatment, a developer of “LiREC” rapid lithium extraction technology
- The Peace River Project overlies the extensive and voluminous Leduc reservoir that has an inferred resource in excess of 10 million tonnes of lithium carbonate†
- The Redwater and Wembley Projects are low CAPEX projects designed to enter production within 24 months from existing lithium-bearing brine injection sites



† non-compliant

NEOLITHICA'S LEADERSHIP TEAM

BARRY CAPLAN
PRESIDENT & CEO
DIRECTOR, FOUNDER

- ❖ A graduate of McGill University with an honours degree in Geology, and over 35 years of experience in energy and metals resource development
- ❖ Served as a geologist in both mining and petroleum fields, leading multi-disciplinary teams from initial concept to commercial development
- ❖ Former CEO of an Alberta mineral development company that developed a 557 Mt poly-metallic deposit from initial drilling to full resource compliance
- ❖ The founding Chairman, and Board member of the Canadian Lithium Association, the precursor to today's Battery Metals Association of Canada

CHRIS WOLFENBERG
CHAIRMAN

- ❖ A leading business lawyer in Calgary, and a partner in the Corporate group at Dentons
- ❖ Focused on public and private corporate and securities transactions in the technology, mining, and energy sectors
- ❖ Acts as Director and Officer of a number of public, private and not-for-profit entities
- ❖ Recognized as Canadian Lawyer of the Year for Mining Law, and has also been recognized for his Venture Capital and Securities practice

MARK PRESTON
MARKETING & IR
DIRECTOR, FOUNDER

- ❖ Award-winning marketing executive with experience in domestic and international sales and marketing that targets high-yield investment opportunities
- ❖ Accomplished public speaker with knowledge in the Canadian exempt market with broad expertise in the domestic/international real estate markets
- ❖ Dedicated his career to helping organizations raise their public profile through outreach to community leaders, government and local stakeholders

STEVEN BUTLER
DIRECTOR

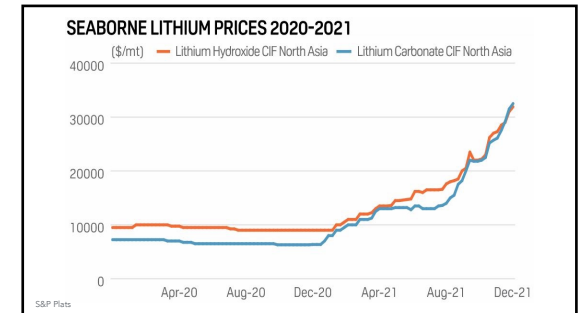
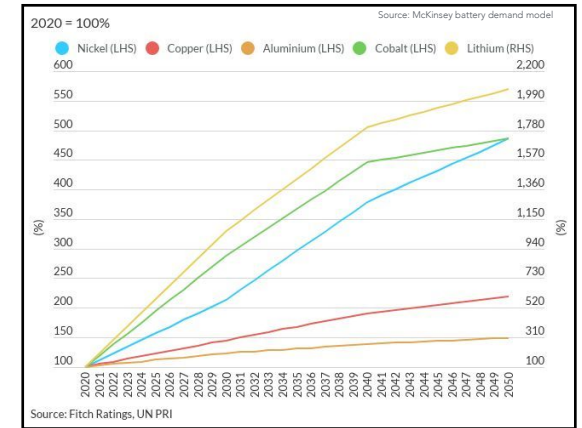
- ❖ Possesses a twenty-five year career in capital markets focused predominantly in mining equity research and sales
- ❖ Held senior positions at four investment banks including BMO Capital Markets, Canaccord Genuity, TD Securities and GMP Securities
- ❖ Served as a director of E79 Resources Corp. since December 2020, and currently holds the position of Business Development Advisor at Certarus Ltd.
- ❖ Acquired an MBA from Dalhousie University and an HBSc in Geology from Queen's University

LINDA WARNER
CONTROLLER

- ❖ A dedicated professional with over 30 years of experience in accounting and administration
- ❖ Strong background in corporate accounting and financial reporting, resource development, food services, and property management
- ❖ Education in Business Administration and Urban Land

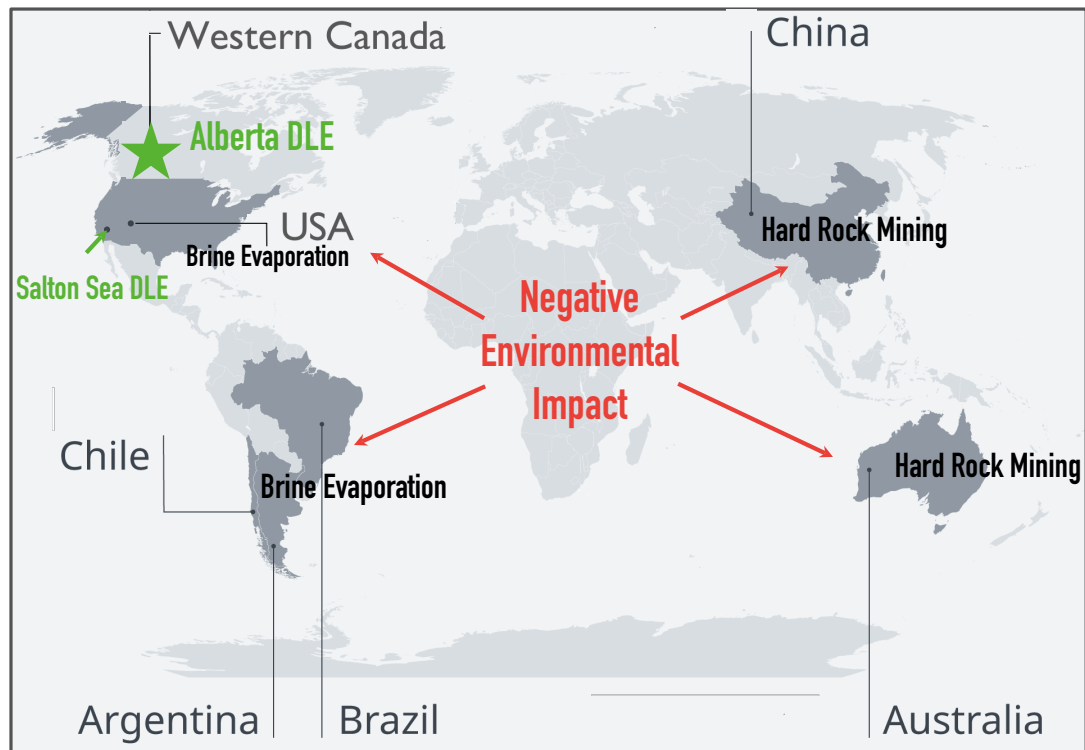
GLOBAL LITHIUM DEMAND

- Over the next decade, McKinsey forecasts continued growth of Li-ion batteries at an annual compound rate of ~30%
- Global electrification of transportation is at risk without a secure supply of lithium
- There are currently no elements that are able to achieve lithium's performance in the EV marketplace
- Lithium has been added to the critical minerals list in the U.S. and Canada
- Global lithium production is estimated to be 350 ktpa lithium carbonate equivalent ("LCE") with demand forecasted to reach 3,000 ktpa by 2030
- Battery manufacturers and automakers are seeking direct raw material supply and are growing their engagement with upstream producers to secure lithium
- By leveraging the existing infrastructure and operational expertise provided in Alberta, NeoLithica will take a leading role in the province's clean energy transition as part of a new wave of lithium producers



CHALLENGE: SUSTAINABLY PRODUCING LITHIUM

Alberta's geothermal brines will minimize environmental impact compared to traditional producers



South American Salars

- Large physical footprint
- Vast amounts of water lost
- Brine not returned to aquifer
- Long production timeline
- Waste stream is toxic
- Ecological problems

Hard Rock Deposits

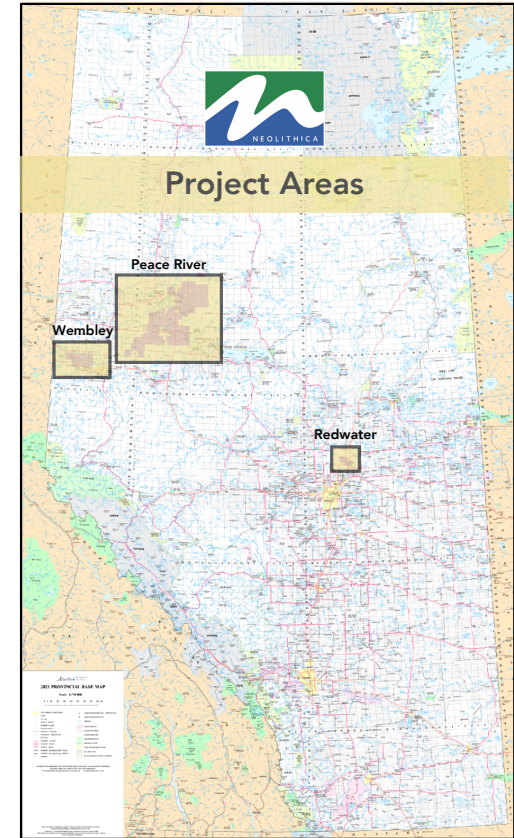
- Large physical footprint
- Large amount of tailings
- Sold in semi-refined form
- Long production timeline
- Energy intensive operations
- Lasting ecological problems

DLE Extraction

- Increased recovery rates from brine compared to traditional lithium extraction methods
- Reduces use of fresh water during extraction process
- Lower carbon footprint than traditional extraction methods
- Reduces overall amount of time and resources needed for lithium extraction

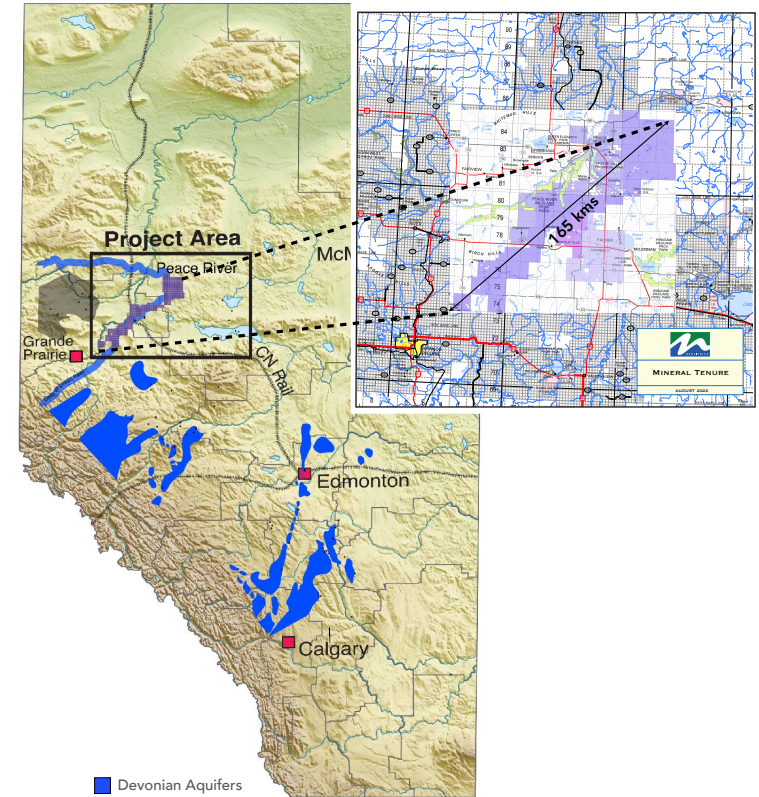
ALBERTA – LEADING THE SUSTAINABLE LITHIUM CHALLENGE

- Alberta's extensive and high-productivity aquifers have relatively high concentrations of lithium within their geothermal brines
- Alberta is poised to rapidly become a global supplier of lithium due to its well-developed oil and gas infrastructure and detailed knowledge of the subsurface aquifer geology
- Alberta offers significant advantages for lithium producers including a streamlined regulatory environment, ease of permitting, low energy costs, major transportation corridors, and a highly skilled workforce
- The Alberta government has passed Bill 82, new legislation to streamline the regulatory process for lithium producers that will accelerate the growth of the lithium industry in the province
- Alberta-based companies are taking a leading role in developing commercial direct lithium extraction (DLE) technologies



OUR FLAGSHIP PEACE RIVER PROJECT

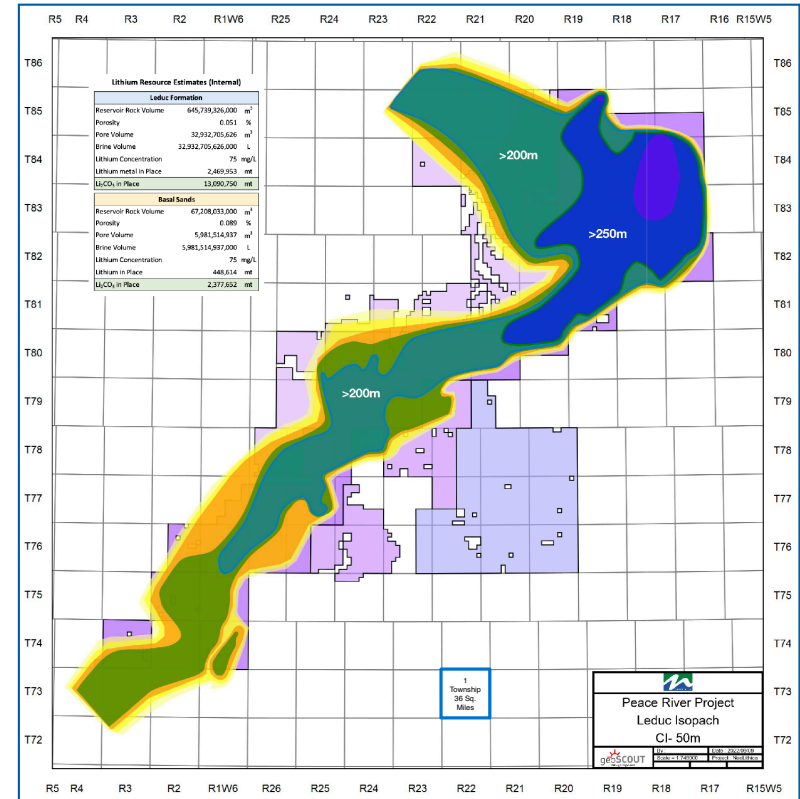
- Favourably located 500 kilometres northwest of Edmonton, extending from the Town of Peace River to City of Grande Prairie
- The Peace Region in Alberta is home to significant oil and gas production and infrastructure development that can be leveraged to accelerate commercial lithium development
- An abundance of easily accessed geological and geophysical data minimizes resource development timelines and expenses due to the region's significance as an energy hub
- The porous and permeable brine Devonian-age aquifers within the Woodbend Group, and the underlying Beaverhill Lake Group are the major aquifers containing lithium in Alberta
- The project encompasses 260,055 ha (1,004 mi²), within a broader regional package of 609,047 ha (2,352 mi²), of mineral tenure overlying massive lithium- rich brine-filled aquifers
- A single 20,000 T/y LCE operation, at \$50/kg of LCE, will have an annual turnover of \$1B, and \$20B over a minimum 20-year project



PEACE RIVER LITHIUM POTENTIAL (INTERNAL)

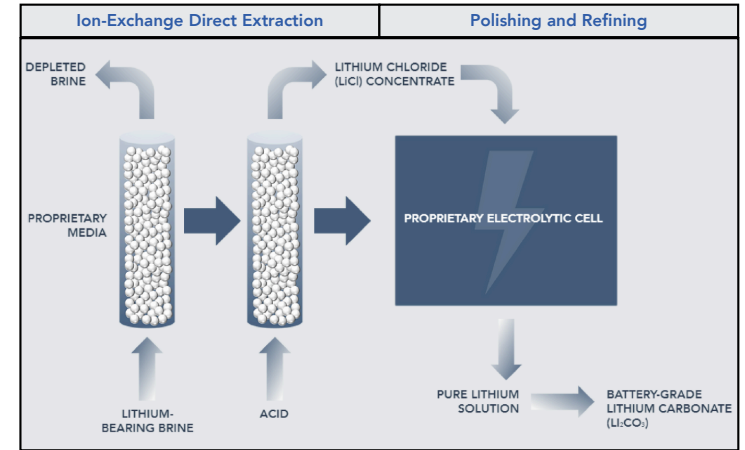
- The Leduc aquifer is extensive across NeoLithica's permits
- The aquifer thickness reaches up to 300 metres, averaging 225m
- Historical brine samples had concentrations between 80-100 mg/L
- Assuming an average concentration of 75 mg/L, the Leduc alone may have over 10 million tonnes[†] of LCE in place.
- NI 43-101 compliant resource update anticipated by end of October
- The overlying Wabamun formation, and the underlying Beaverhill Lake and basal sands also have lithium concentrations (35-80 mg/L)
- The Project encompasses 28 townships of high quality reservoir, each township may contain up to 400,000 tonnes of LCE
- Up to 30 wells per township would be drilled to produce the brine for lithium extraction, and re-injection after processing
- A 750 tonne commercial pilot would require only 1 producing well, and generate US\$37,500,000 in annual turnover, at US\$50,000/T lithium carbonate, and payback in less than 2-years

[†] non-compliant



THE LiEP SYSTEM: BATTERY-GRADE LITHIUM REFINING

- The LiEP System is robust, cost-effective, eco-friendly, and can scale to process large volumes of lithium brine to produce commercial battery-grade lithium
- LiEP tested its entire process through a pilot project in 2020/2021 and successfully produced high-purity 99.54% battery-grade lithium carbonate from western Canadian oilfield brine
- LiEP's ion-exchange (IX) media can be cycled over 1,400 times compared to 500 cycles of competition, reducing operating expenses
- The LiEP System can handle higher levels of contaminants compared to its competitors
- LiEP's custom electrolytic cell design is able to recover half of the acid that is used in the concentration stage, reducing operating expenses
- LiEP's refining system can process lithium acid concentrates as low as 4,000 ppm lithium versus competitors who require 30,000 ppm



The LiEP System Ion Exchange and Refining Flow Diagram



LiEP System's Proprietary Ion Exchange Media



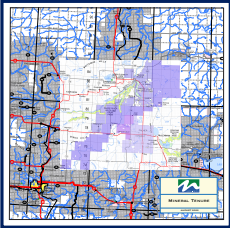
Refined Battery-Grade Lithium Carbonate from Brine

COMMERCIAL & FINANCING SUPPORT

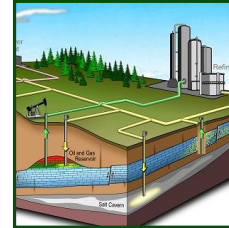
- The Government of Alberta has passed Bill 82, with new legislation designed to facilitate the development of the lithium brine industry in the province by streamlining the regulatory and tenure process
- Up to \$3 million of Provincial and Federal government R&D and commercialization grants may be available to NeoLithica for its Demonstration Pilots. NeoLithica also qualifies for Federal SR&ED refunds of up to 30% of its R&D expenditures
- The Demonstration Pilot will be producing battery-grade lithium samples to be seeded to potential off-take customers, including EV car makers, and the energy storage and electronics industries
- The Trade Commission of Canada have opened communications within their USA, Japanese and Korean trade offices in order to facilitate outreach to potential off-take buyers and major investors
- Invest Alberta and Innovation Canada will be assisting NeoLithica as it seeks to expand its profile across the country and globe



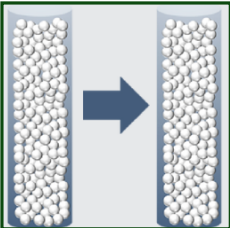
NEOLITHICA INVESTMENT SUMMARY



NeoLithica owns 609,047 ha of mineral permits across in Alberta, overlying prolific lithium-rich brine aquifers



NeoLithica's flagship project features well developed infrastructure to accelerate commercialization



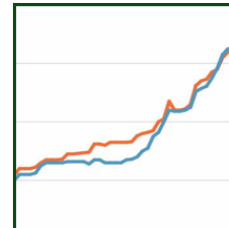
NeoLithica has locked up proven DLE technology and refining processes that are unmatched in the lithium industry with LiEP Resources & waterStrider



Demonstration Pilots will produce battery-grade lithium samples to secure supply off-take contracts and underpin PEA expected in 2023



NeoLithica and LiEP will produce battery-grade lithium carbonate at 99.5% purity to fill demand



Based on peer group valuations, NeoLithica has the potential to build significant shareholder value and deliver on long-term growth objectives



Alberta Lithium Production

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