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HALLGARTEN + COMPANY

Initiation of Coverage

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E3 Lithium

(TSX-V: ETL | FSE: OW3 | OTCQX: EEMMF)

Strategy: LONG

Key Metrics	
Price (CAD)	$1.48
12-Month Target Price (CAD)	$2.55
Upside to Target	72%
12mth high-low	$0.495 to $1.83
Market Cap (CAD mn)	$111.59
Shares Outstanding (mns)	75.4
Fully diluted	84.5

E3 Lithium

A Key Piece of the Brine Ascendancy

- + The Clearwater project in Alberta is the leading unconventional Lithium brines project in Canada and one of the largest in North America
- + Brine operators appear to be in the ascendant, with those in pursuit of hard rock mineralisations appearing destined to the tailings pile of history
- + Infrastructure is exceptional in terms of power and road access, with no water issues
- + A Pre-Feasibility Study (PFS) published in mid-June of 2024 revealed a pre-tax NPV8% of US$5.2bn with a 29.2% IRR and an after-tax NPV8% of US$3.72bn with a 24.6% IRR, however the company has communicated it is expected that the planned Feasibility Study (FS) will move to a phased construction approach
- + Recent reconfiguration of the construction into three phases and a pivot to Lithium Carbonate (away from Lithium Hydroxide) might reduce the upfront CapEx substantially and produce a more fungible, easily transported product
- + Phase 1 of the Demonstration Facility began operations in early September of 2025 applying DLE technology to brine sourced from the Clearwater project
- + Both the Canadian (and Alberta) governments have been exceptionally supportive of the project
- + As the most likely survivor in the Lithium space in Canada, due to its brine focus, it might well become the national champion over the long-term
- × Lithium pricing is weak and looks destined to remain that way (which advantages those players focused on Lithium brine)
- × The project´s original CapEx, in the PFS of June 2024, was US$2.47bn and thus sizeable by any standards and this precipitated a rephasing of the production
- × Financing in the Lithium space is very difficult these days and thus is subject to the participation of offtakers, more than the equities market

Persistence and Size

The pall cast over the Lithium space by the collapse of the Chinese-induced Lithium “bubble” has nevertheless cleared the air (and the decks) by narrowing down the focus of who the winners and losers will be in the Lithium space over the rest of the decade. The main thing that has become clear is that spodumene and other exotic mineralisations are the first line victims of the cleansing of the Lithium space.

<u>The survivors (and thus the winners) will be the brine producers.</u>

E3 Lithium is targeting the development of Lithium from petro-brines – a source of Lithium from

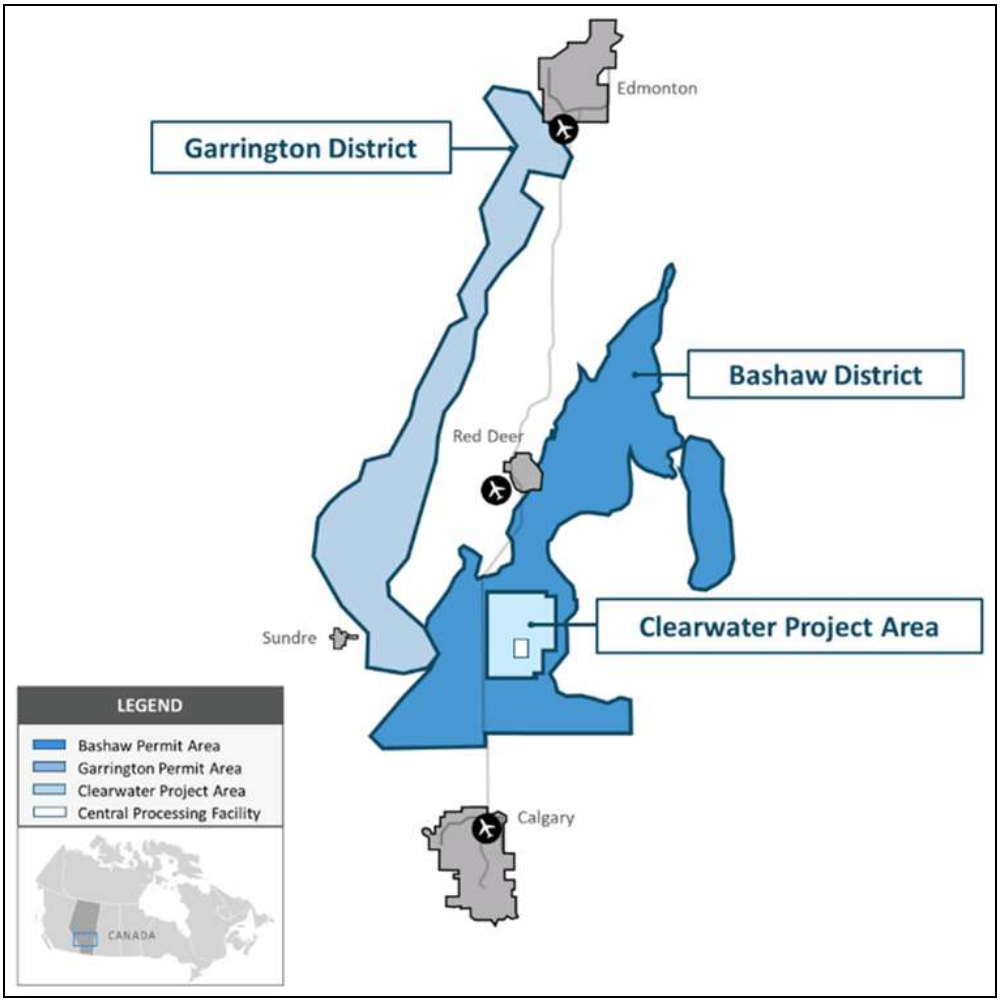
reservoirs associated with oil and gas production. As has become clearer in recent years, it's not just the grades of Lithium in one´s deposit that matters, but also the technology to be deployed in its extraction, concentration and conversion to Lithium carbonate or hydroxide.

In parallel to its internal technology development, E3 Lithium is actively evaluating industry developments to identify potential options to complement the E3 Lithium's process flowsheet.

In this Initiation of Coverage, we shall go over the specifics of the project, the dynamics of petrobrine, the current evolution of the Lithium demand space and the road to development of the Clearwater project.

Background

The current corporate vehicle is the result of an RTO in May 2017 when an entity holding a 100% interest in the Clearwater and Exshaw properties was merged into the listed Savannah Gold Corp. which duly changed its name to E3 Metals Corp. This was later changed to E3 Lithium Ltd. in July of 2022.



Three of E3 Lithium's properties are located in south-central Alberta. Two of these are in what is called the Bashaw district, while the Garrington project adjoins the Bashaw District to the West. The properties in the Bashaw district are comprised of ten Alberta Metallic and Industrial Mineral Permits totaling 87,965 hectares (879.65 kms^2) further sub-divided into three separate areas, or groups of contiguous permits:

- Clearwater: the main project consists of seven contiguous permits totaling 62,540.1 hectares
- Exshaw (East): two contiguous permits totalling 16,628.4 hectares
- Exshaw (West): a single permit of 8,796.1 hectares

The Clearwater project is closest to the city of Olds. As for the entire property package, the most central urban centre is the city of Red Deer. The Bashaw license nearly extends as far south as Calgary while the Garrington license extends north to the outskirts of Edmonton. Access to the properties is facilitated by decade's worth of petro-production that enables ground vehicle access via a well-maintained network of paved and all-weather roads.

The royalty regime on that payable to the province is being determined at this time. No private royalties exist over E3's permit areas.

The company also holds the Estevan project in southern Saskatchewan, of which more anon.

Petroleum Brines in Alberta

For a long while, formation water or brine associated with some of the world's oilfields have been known to contain medium- to highly-anomalous concentrations of Lithium and are therefore, considered potential sources for large tonnages of Lithium.

In Alberta, Lithium-enriched (>50 mg/L) formation water, or brine, has been historically documented by government and industry to occur within the Devonian Beaverhill Lake (Swan Hills), Winterburn (Nisku), Woodbend (Leduc) and Wabamun groups (formations) of the Alberta Basin. This package of strata in Alberta is world-renowned for its oil and gas resources and is collectively known as the Devonian petroleum system, which was discovered at the Leduc No. 1 well near Leduc, Alberta, in 1947. The vast hydrocarbon reserves within Alberta's Devonian strata are attributed to the abundance of mature, excellent to good quality reservoir rocks.

By nature, saline brine coexists with oil/gas in these highly porous and permeable reservoirs (or aquifers). As such, brine at the Clearwater and Exshaw properties is accessible via oil/gas wells that have pumped the brine (along with hydrocarbons) from Devonian aquifers situated at depths of between approximately 1,500 m to 3,500 m below the surface. The brine is essentially wastewater associated with hydrocarbon products. Currently, the extracted water is treated to separate and remove petroleum products and then is re-injected back into subsurface formations.

Exploration & Past Work

Historical testing of Lithium in brine, prior to E3 Lithium, was conducted as part of routine chemistry analysis by oil and gas operators in the area from produced water related to oil and gas production. These data were compiled in a comprehensive overview of the mineral potential of formation waters from across Alberta by the provincial government. Subsequent collection of brine water from actively producing oil and gas wells was conducted by the Alberta Geological Survey and the brine water was analyzed for Lithium.

From June 2022 to January 2023, E3 Lithium conducted a three-well exploration program. The exploration program included drilling two wells and acquiring a third. The locations were selected to maximize the description of geological, reservoir, and Lithium concentrations within the project area. The 2022 drill program was the first in Alberta specifically drilled to test brine for Lithium concentrations.

E3 Lithium completed a review of the brine and hydrocarbon drilling history within the project area, reviewed available historical third-party core data and historical well logs, examined results of hydrocarbon industry drill stem tests, examined historical production, injection and disposal volumes, and assessed historical and publicly available Lithium data. E3 Lithium conducted brine sampling from existing hydrocarbon wells, including wellhead, test separator, large volume, and repeat sampling. The company has drilled and completed two wells, and completed a third-party well, estimated Brine Resources and Brine Reserves, and completed engineering studies, culminating in the PFS in 2024.

On Alberta

In Alberta, rights to metallic and industrial minerals, to bitumen (oil sands), to coal and to oil/gas are regulated under separate statutes, which collectively make it possible for several different ‘rights’ to coexist and be held by ‘different grantees’ over the same geographic location. In Alberta, Lithium is considered a metal or mineral, and therefore, the statutes fall under industrial and metallic mineral legislation that is regulated and administered by Alberta Energy.

The Mineral Resource Development Act established the Alberta Energy Regulator (AER) as the full life-cycle regulator for Alberta’s mineral resources. This was passed in December 2021.

Alberta stated that it was taking a staged approach to implementing the regulatory framework for the Mineral Resource Development Act, by first developing regulations for minerals extracted from underground saltwater, known in the industry as brine-hosted minerals.

On March 1, 2023, the Mineral Resource Development Act came into effect for brine-hosted mineral development.

E3 Lithium has been granted the exclusive right to explore for metallic and industrial minerals for seven consecutive two-year terms (total of fourteen years), subject to biannual assessment work.

Background to the Clearwater Complex

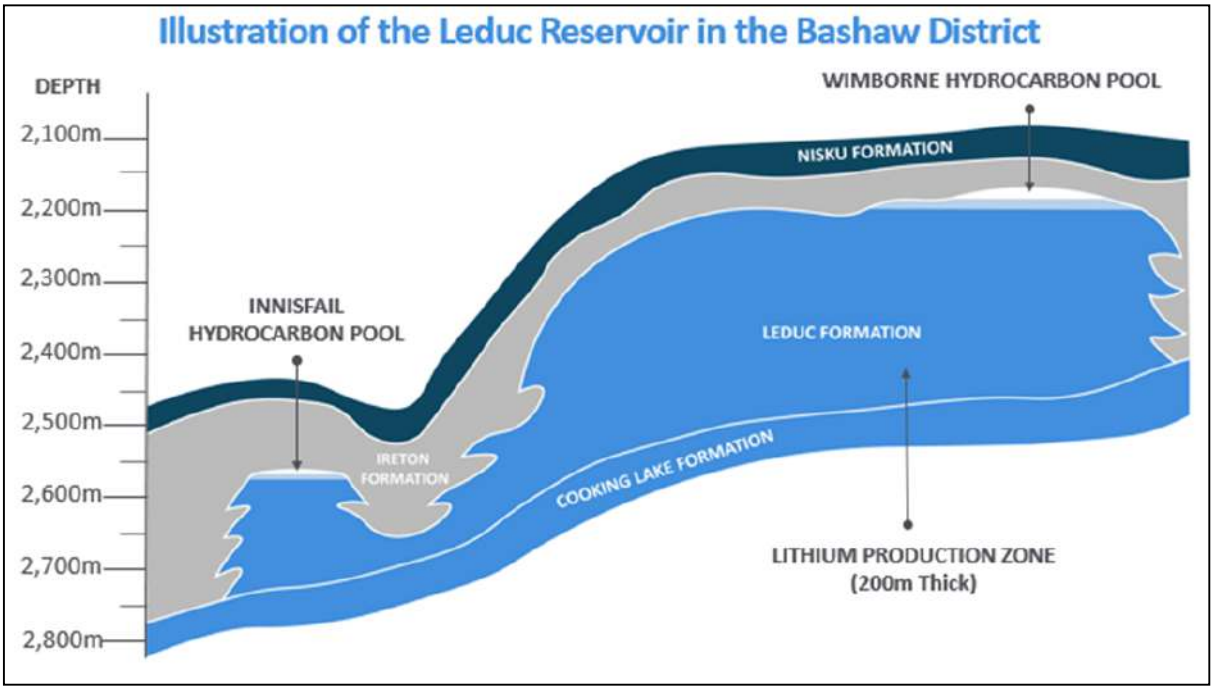
The Lithium potential of E3 Lithium´s license area was first identified when government and industry formation water studies from the 1970s to the 2010s reported that anomalous values of Lithium and other elements occur in Devonian aquifers associated with carbonate buildups in the Leduc Formation.

Lithium-enriched brine occurs within the prolific Leduc Formation in Alberta as dissolved Lithium ions in the formation water. Occurring about 2,500m below the surface, the Leduc Formation is an extensively dolomitized ancient reef complex that spans hundreds of square kilometres in area and is over 200m thick.

In the case of the Clearwater and Exshaw properties, brine from the Leduc, Nisku and Wabamun aquifers is pumped to the surface from depths of more than 1,500m as part of hydrocarbon production associated with the Devonian petroleum system.

It exhibits exceptional flow rates and deliverability due to favourable rock properties and pressure. The reservoir is extremely well understood due to 70 years of historical oil and gas development in the area.

Of the billions of litres of fluid contained within the pore space in the Leduc Formation, greater than 95% is Lithium-enriched brine. The remaining ~5% is hydrocarbons which have been mostly depleted in the Leduc Reservoir.



Above is a cross-section through the Leduc reef in the Clearwater permit area. Oil and gas production is restricted only to the upper portions of the reservoir. E3 Lithium's commercial development will involve

deeper wells, potentially away from oil and gas production zones, though this production is inconsequential.

Direct Lithium Extraction (DLE)

Brine extraction traditionally relies on a combination of solar evaporation and chemical precipitation methods. The evaporation mode works only in very specific locations such as the Andean Altiplano locations with high altitude and almost guaranteed daily sunshine. The long timeline to first product from extraction of brines using evaporation from brine holding ponds (something like 18 months in Andean brine complexes) prompted the initial search for DLE solutions even for those blessed with cloudless skies and high evaporation rates.

In recent years, DLE methods have emerged as promising alternatives to address the limitations of legacy extraction techniques by:

- reducing water consumption
- minimizing chemical usage
- shortening processing times

DLE has enhanced relevance for E3 Lithium´s production plans as clearly it has brines, but does not have, because of climatic issues, the possibility to evaporate off water from its raised brines. Moreover, it utilises the delithiated water for reinjection.

Among the DLE methods, the adsorption-based technique using aluminium-based adsorbents has been fully commercialized with the highest Technology Readiness Level (TRL) of 9, indicating its current use in and readiness for widespread industrial applications.

The company, early on, evaluated multiple manganate ion exchange and aluminate sorbent systems at bench scale to demonstrate Lithium recovery from the Leduc brine. Manganate ion exchange achieved Lithium extraction recoveries from 89.1– 90.8% while the aluminate sorbents achieved recoveries from 90.0–95.0%.

From an economic perspective, adsorption methods possess lower capital expenditure (CapEx) and operational expenditure (OPEX) compared to membrane-based technologies, making them more attractive for large-scale implementation.

The performance of adsorption varies depending on brine composition, and parameters in each resource need to be adjusted accordingly. Depending on location, this may include, but not necessarily, pre-treatment, post-treatment, and heating up of the brine.

Production Flowsheet

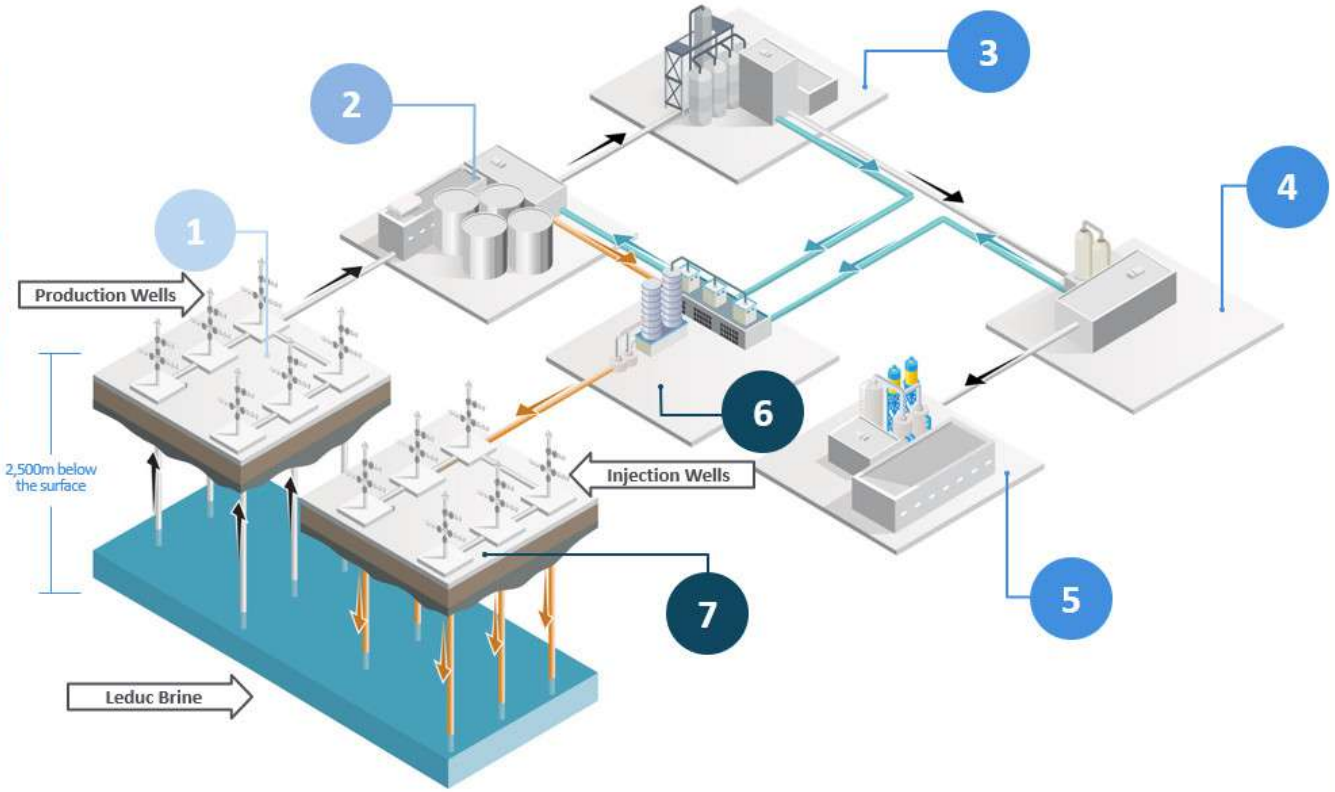
Brine Production Network: The PFS posits 38 well pads will be connected via a series of local pipelines

to the CPF. These pipelines are underground, similar to oil and gas pipeline networks in Alberta. It is worth noting that the revised development scheme in the upcoming Feasibility Study will likely have more pads in total.

Pretreatment: The pretreatment process for brine from the Clearwater area will involve receiving the brine at 70°C and 800 kPa. The water/gas mixture is depressurized to release about 80% of dissolved gas, mainly H_2S. The majority of the remaining gas is captured in a Vapour Recovery Unit in the holding tank. The entrained gases are collected from the brine and re-injected into another reservoir that has no economic value. The brine's low total suspended solids are expected to be less than 350 mg/L, which would eliminate the need for filtration before DLE.

Central Processing Facility – Lithium Production Process

1. LITHIUM ENRICHED BRINE EXTRACTION
2. DIRECT LITHIUM EXTRACTION
3. CONCENTRATION & PURIFICATION
4. FINAL CONCENTRATION
5. CONVERSION TO BATTERY-GRADE LITHIUM
6. WATER PURIFICATION
7. BRINE RE-INJECTION

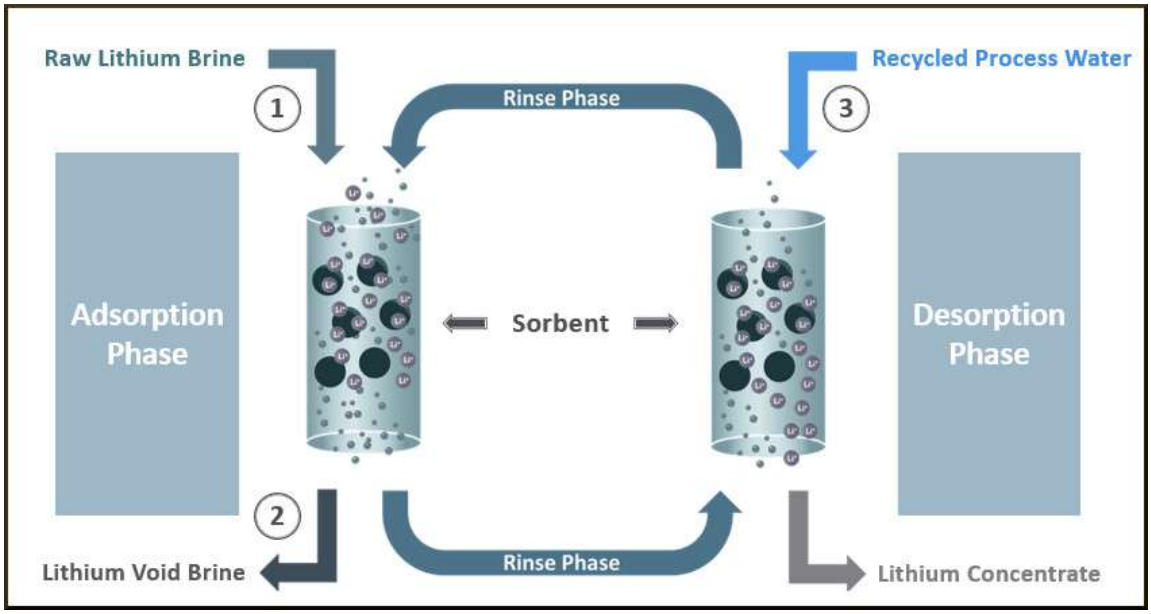


LEGEND

- Lithium Enriched Brine / Eluate
- Recycled Process Water
- Lithium Depleted Brine

EXTRACTION | DLE | REFINING | INJECTION

Direct Lithium Extraction: Lithium chloride would be extracted from degassed brine through a DLE process using an aluminate-based sorbent in a continuous separation process. This process involves columns cycling across operating modes, controlled by dedicated valves. The process is shown below:



1. *Lithium ions are adsorbed into the solid sorbent material engineered to be highly selective for Lithium*
2. *Lithium depleted brine leaves the system for injection back into the reservoir, in a similar form*
3. *Recycled water is used as a strip fluid to remove the Lithium ions to produce a high-grade concentrate*

The process produces no waste streams and requires no chemical treatment within the DLE process.

Purification and Volume Reduction: The Lithium chloride stream from DLE would then undergo purification and concentration to remove contaminants, reduce volume, and recover water for reuse; this involves filtration, reverse osmosis, nanofiltration, and conventional ion exchange processes. The last step of water reduction involves evaporating with a Mechanical Vapor Recompression (MVR) unit, an energy efficient method. The system deploys a "Zero Liquid Discharge" philosophy that recycles all available received water from the various process steps back into an evaporator to produce purified water for use in the Desorption step of the DLE system.

Conversion to Lithium Compounds: The purified Lithium chloride would then be converted into Lithium carbonate using a chemical precipitation process. The final Lithium carbonate stream can be sold directly into the battery cathode manufacturing process.

Brine Extraction/Lifting

To produce Lithium, the reservoir water will be pumped to the surface from a production well as produced brine. The produced brine will be processed at the surface to remove the Lithium, leveraging direct Lithium extraction technology. The Lithium-depleted brine will be injected into the reservoir using

injection wells for pressure support.

Drilling wells for brine production and injection will use the same practices and proven technology as hydrocarbon drilling. Lithium-enriched brine from the Leduc Formation will be produced from the subsurface to surface using a downhole artificial lift system placed within the well.

Multiple well and pump design scenarios were evaluated to determine the optimal design for the project. The optimal design was determined by balancing total project costs with executability, including lead-time for casing, tubing, and pumps, to deliver the total brine production of 232,500 m^3 per day to the facility inlet. The evaluation included the reservoir deliverability and injection capacity of a variety of well network patterns and downhole spacing scenarios.

The reservoir development plan is to drill up to five wells from each of the 38 pads in the project area, for a total of 93 producers and 93 injectors, each with a brine rate of 2,500 m^3 per day. This approach allows for the centralized gathering of fluids, reducing road and pipeline construction. The inlet volume required for the Central Processing Facility is 232,500m^3 per day, which can be met and maintained from the 93 wells for the full 50 years of production, without requiring sustaining well capital.

The PFS envisaged that the total field development program would require approximately 1,300 days of drilling. With six rigs, this would have taken approximately six months of drill time. This includes the initial survey, clearing, and civil work required for well pad construction and access. However, this lead time is significantly foreshortened in the three-phase plan, as only the wells for the Clearwater Project Phase One would be required at the outset. This creates a shorter lead-time to production.

As noted, the production lifting task takes many of its cues from oil & gas industry practice. To offset Lithium grade decline, after five years of production and injection, a workover will be performed on the injector wells to shut in the top quarter of the reservoir, thereby forcing re-injected Lithium depleted brine into the lower portion of the Leduc Reservoir from Year 6 to Year 50. This strategy was chosen to optimize drainage across the well network as the Lithium-depleted brine injected into the reservoir travels more quickly through the upper portion of the Leduc Reservoir, which has higher porosity and permeability compared to the lower portion.

By forcing injection into the lower portion of the Leduc Reservoir, the Lithium depleted brine sweeps the Lithium enriched brine towards to producer wells more effectively.

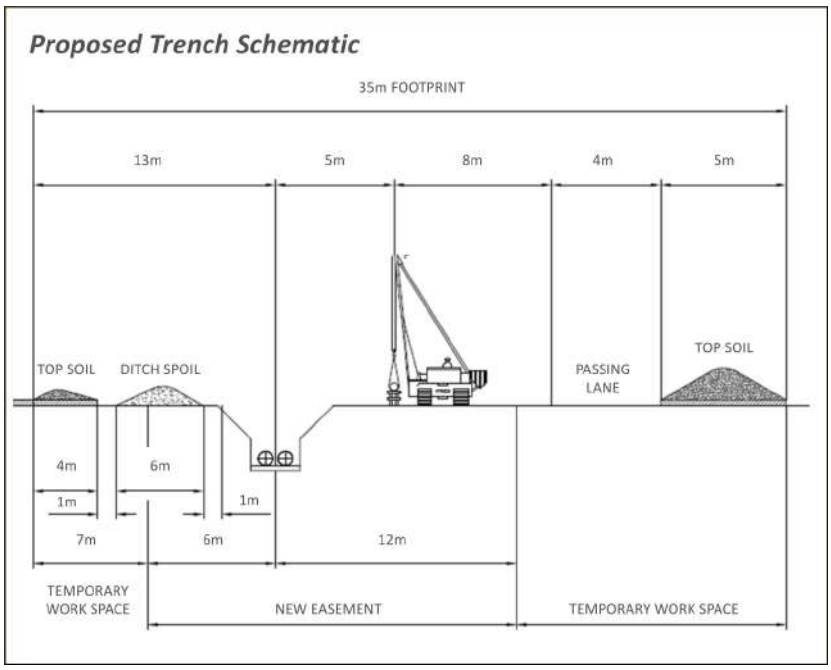
Pipeline Network

Interestingly, the pipeline will operate in a two-phase flow regime along its length. This is not uncommon in the oil and gas industry, and operating a two-phase pipeline operation is well understood.

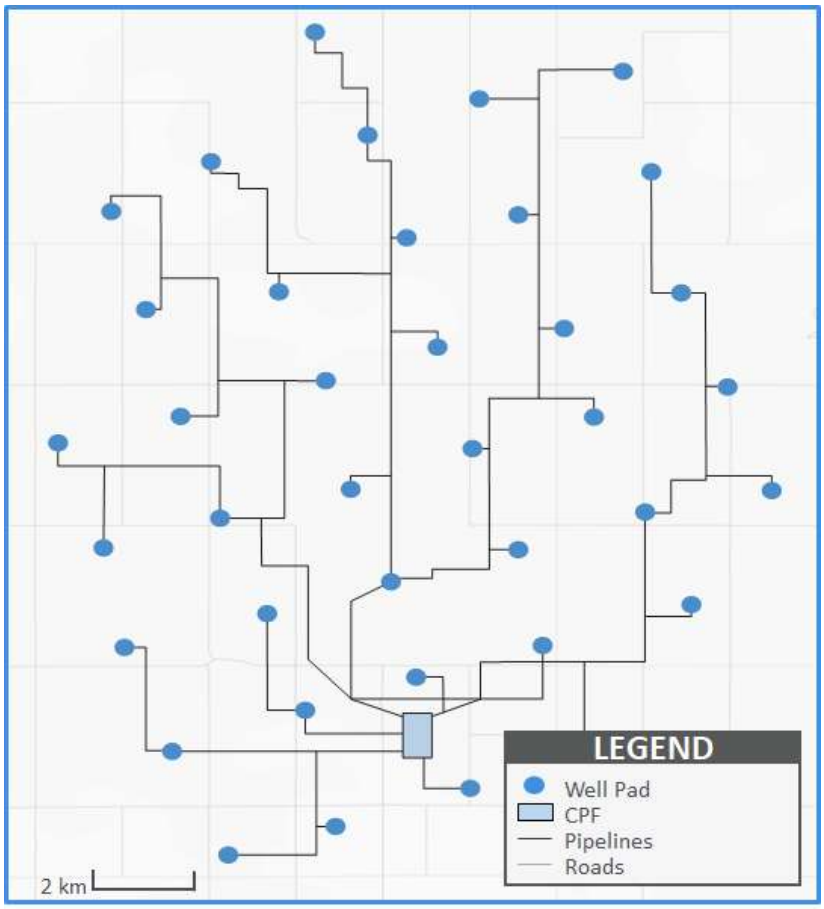
E3 Lithium anticipates using the following pipeline components and materials:

- Size: Pipeline sizes will range from 8 inches to 24 inches, dependent on flow requirements and design specifications

- Material: Composite reinforced piping, most likely fiberglass, will be used due to its strength and corrosion resistance
- Configuration: Each right-of-way includes two pipelines, one for production and one for injection
- Installation Depth: Pipelines will be installed below the frost line, with a minimum cover depth of 1.2m
- Installation Method: Open trench for general installation and directional drilling for road and watercourse crossings (as per schematic below)



The pipeline corridors and trench for the brine supply pipelines will be shared with the brine reinjection pipeline network. There will be a total of approximately 200 kms each of brine production and brine reinjection pipelines. The pipeline segments will be buried in a trench, below the frost line, and will be insulated below grade.



The Clearwater Resource

It is firstly interesting to note that calculating a Brine Mineral Resource Estimate (MRE) for the Bashaw District is unlike almost any kind of resource calculation used in the mining space and that includes the *salares* of the southern Andes. The calculations in this case are most closely related to those for the petroleum/gas industries than mining.

The resource on the Clearwater Project is based on reservoir geometries and properties populated in a 3D geological and reservoir model developed using Petrel™ (Schlumberger Information Solutions, undated). Petrel™ is a commercial software platform that integrates geological and reservoir data.

The geological model included the following reservoir characteristics: area geometry, structure, thickness, porosity, permeability, and Lithium concentrations (grade). The 3D geological model was used to geostatistically simulate and evaluate scenarios of connected porosity in the reservoir that were used as the basis for the resource estimate in the model domain.

In calculating the MRE for the Bashaw District the QP determined that, based on statistical evaluation and the completion of the vertical grade profiling, the sample dataset represented a large regional area

across the Bashaw District and within this dataset, Lithium grade variance was small and there were no mappable spatial trends in the grade. This has allowed a surprisingly small set of drill results to be extrapolated widely in a manner uncharacteristic to those methods in hard rock mineral categorisations.

This small Lithium grade variance would be expected for a regionally-continuous, hydraulically-connected aquifer, where the emplaced Lithium has been regionally distributed through advective and dispersive groundwater flow over a long period of geological time. Based on this analysis, the QPs believed it was reasonable to apply the P50 Lithium concentration of 75.5 mg/L as the Lithium grade across the Bashaw District to estimate the volumes for Measured and Indicated Brine Resource volumes.

The Qualified Persons for the Brine Resource estimates were Daron Abbey, P. Geo and Alex Haluszka, P. Geo, both of Matrix Solutions Inc. with the MRE having an effective date of June 20, 2024.

Bashaw Resource (Original Lithium in Place)

	Lithium	Lithium Carbonate Equivalent (LCE)	Lithium Hydroxide Monohydrate (LHM)
Measured	1,256,300	6,687,200	7,595,500
Indicated	1,790,500	9,530,900	10,825,450
Total	3,046,800	16,218,100	18,420,950

Source: 2024 Clearwater Project NI 43-101 Technical Report on Pre-Feasibility Study, June 20, 2024

The Measured and Indicated Mineral Resources (above) correspond to the total producible Lithium in place in the Bashaw District while the Proven and Probable Brine Reserves (that follow) represent the recoverable Lithium in the Clearwater Project Area, which is a subset of the producible Lithium demonstrating the portion of producible Lithium that can be extracted and sold during the planned life of the project.

Clearwater Reserves

	Lithium	Li Carbonate Eq. (LCE)	Li Hydroxide Monohydrate (LHM)
Proven Initial 5 years	26,500	141,200	160,350
Probable 6 to 50 years	187,250	996,650	1,132,050
Total	213,750	1,137,850	1,292,400

Understandably, Lithium grade will decline over time as the reinjected Lithium depleted brine makes its way to the production well. A conservative approach has been taken which allows both the production and injection wells to be perforated across the entire Leduc Formation thickness for the first five years of production, and then the injection wells will have a workover completed so that injection is limited to the lower portion of the reservoir while the production wells continue to produce from the entire reservoir thickness, to maximize overall recovery.

The Preliminary Feasibility Study (PFS)

Before launching into an examination of the PFS, we should note after publication it had, to a degree, already been overtaken by other macro trends and thus should be seen in the light of the changes that management decided to make in the months after its publication.

In late June of 2024, the PFS on the Clearwater project was filed. The key metrics of the 2024 PFS were:

Clearwater PFS

PFS Metric	Units	Value
Initial Production	tonnes LHM/year	32,250
Average Production (50-year)	tonnes LHM/year	25,850
Total Initial Capital (CAPEX)	millions	US$2,465
Total Sustaining Capital	millions	US$1,264
Annual Operating Cost (OPEX)	millions	US$187
Initial Operating Costs (OPEX/tonne)	per tonne	US$6,200
Average Operating Costs (OPEX/tonne)	per tonne	US$7,250
Average LHM Price (BMI)	per tonne	US$31,344
Average Annual EBITDA		US$531mn
IRR (pre-tax)		29.20%
IRR (after-tax)		24.60%
NPV_8 (pre-tax)		US$5,178mn
NPV_8 (after tax)		US$3,720
Payback Years	Years	4.25

This was prepared by a team including: Daron Abbey of Matrix Solutions Inc; Alex Haluszka of Matrix Solutions Inc; Meghan Klein of Sproule Associates Limited; Antoine Lefaivre of Sedgman; and Keith Wilson of Stantec Inc.

The PFS incorporated 12 months of engineering and design work and includes the data and learnings from the 2023 Direct Lithium Extraction (DLE) Field Pilot Plant, as well as the in-house verification testing. The detailed flow sheet outlines a Lithium chloride produced from a DLE system and further

purified and concentrated. The PFS was premised on a two-stage chemical conversion process which firstly produces Lithium carbonate and then battery-quality Lithium hydroxide.

The NPV shown in the PFS was predicated on an average LHM Price (BMI) of US$31,344 per tonne, which is clearly now out of line with the current LME price of US$8,500 per tonne for Battery Grade Lithium Hydroxide CIF (sourced from Fastmarkets).

This reference price, however, has lost relevance due to the Clearwater end-product henceforth being Lithium Carbonate under the revised scheme.

As is now known, the company has shifted away from this target towards solely producing Lithium Carbonate (at a greater volume) and has also divided the sequencing into three phases. This was done to align with a desire by potential customers for a Lithium Carbonate product while making the upfront CapEx more bite-sized.

The PFS does not lose its relevance as sequencing of volumes may have changed but the ultimate lifting and process flowsheet up to the Lithium Carbonate phase remains essentially unchanged. It is expected that the Feasibility Study will be completed in 2H 2026, incorporating the findings/lessons from the Demonstration Facility phases.

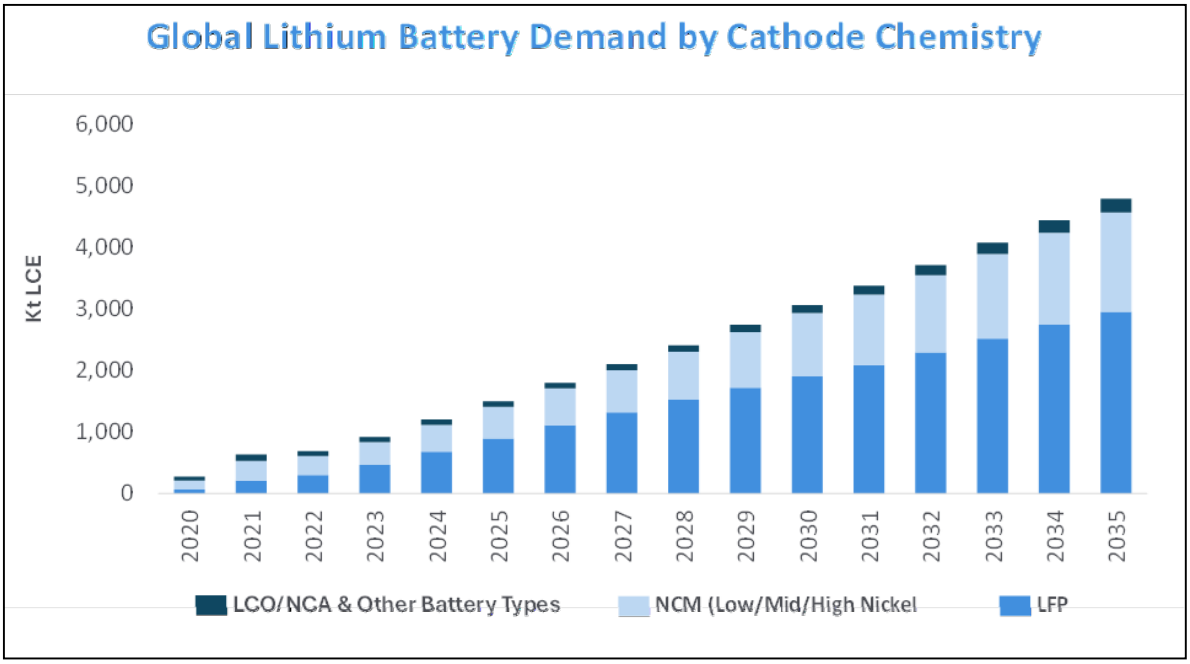
Nuancing the Plan – Pivoting from Hydroxide to Carbonate

While Lithium producers and developers have been whiplashed by gyrating Lithium prices, the OEMs and battery makers have found themselves on the shifting sands of government *diktats*, evolving technologies of EVs and batteries and consumer trends and sensitivity to pricing of EVs.

During 2024, the Lithium battery industry saw carbonate-based battery chemistries increase market share.

The use of Lithium-iron-phosphate (LFP) batteries has increased significantly due to the energy density increases as we have detailed in our coverage of First Phosphate. There has also been a reduction in costs to about $50 per kWh, which is now below the EV/ICE price parity point. Driven by a move to LFP and mid nickel chemistries, there is currently greater demand for Lithium carbonate over Lithium hydroxide, accounting for over 60% of the overall chemical demand.

Clearly the CapEx for the plan as envisioned by the PFS is somewhat monumental. Added to this is a tendency on the part of battery manufacturers to prefer a Lithium carbonate (LCE) product over a Lithium hydroxide (LHM) product. This is evidenced in the projections below by Benchmark Minerals.



Source: E3 Lithium Corporate Presentation (Benchmark Minerals Intelligence Lithium Market Overview Q2 2025)

- Lithium iron phosphate (LFP) cathodes are projected to maintain a dominant position in the cathode materials market, with an anticipated market share increase from 51% in 2024 to 62% by 2030
- Projected demand for Lithium carbonate is expected to account for 72% of overall Lithium demand throughout the forecast period driven by the prevalence of LFP and mid-nickel batteries

In the wake of the publication of the PFS, the management team have reconfigured the project into three phases. This was reported in a news release in February 2025. The three phases would each produce 12,000 tpa of LCE for a full production capacity of 36,000 tpa of LCE once fully constructed.

This change brings a collateral benefit in that Lithium carbonate is easier to ship than Lithium hydroxide (with the latter subject to degradation over time). This also implies the output can be shipped farther (i.e. Europe or Asia) over longer periods of transit.

Capital Expenditure (CapEx)

The initial CapEx in the PFS at US$2.46bn (US$76,434 per tonne of LHM) was deemed to be large by any metric or comparison thus the company´s management made the strategic decision to alter the Clearwater Project development plans to a phased approach, resulting in a smaller initial capital outlay that may prove more palatable to the markets and to funders/strategic investors.

Clearwater - Capex

	Installed Cost US$mn
Brine production and brine injection wells	378
Brine production and injection pipelines	448
Brine treatment	448
Lithium extraction, purification and carbonati	404
Lithium hydroxide, crystallization and packagi	255
Chemical handling	52
Site preparation (allowance)	31
Buildings (allowance)	49
First fills	56
Total	2,123
Contingency @ 16%	342
Total with Contingency	2,465

On the issue of sustaining capital is the numbers shown below are more substantial than one would see with a usual mining project. This would not necessarily be a surprise for those accustomed to costs in the oil & gas industry.:

Sustaining Capital

	US$ mns	Replacement Included
Well sustaining capital	6.9	One-time well workover for production optimization
Central processing facility maintenance	368.8	Membrane, resin and sorbent replacement
Major maintenance	282.0	Sour gas compressor overhauls, electric submersible pump replacement
Total sustaining capital	657.8	
Average annual sustaining capital over 25 yrs	26.3	

Nuancing the Plan – Capital Expenditure

We estimate the elimination of the equipment required to convert Lithium chloride to Lithium hydroxide produces a substantial reduction in CapEx of the order of US$300mn. In addition, the original PFS design included 10 DLE trains (of 30 columns) whereas the increase in total capacity to 36,000 tpa of LCE will require 12 DLE trains. This will increase CapEx incrementally for that portion of the CPF.

We are estimating that the net result of the changes will keep the total CapEx in the US$2.4bn range (or US$68,333 per tonne of LCE) for the full Clearwater Project development. Because the first phase

incorporates some of the set-up costs for the future phases it is weighted with higher capital obligations. We would thus estimate ~US$1bn for the first phase and ~US$700mn each for the subsequent phases.

Opex – Going Down

The annual operating cost, in the PFS, was calculated using quantity and pricing information provided through vendor quotes or by engineering calculation. An allowance was assumed for some miscellaneous costs.

The operating costs are average annual costs over the 50-year operating life of the project and are reported in US$ per annum. The numbers from that study were:

Annual Operating Expenses
US$

Well fixed costs	3,640,000
Well variable costs	1,749,000
Maintenance	26,491,000
Pipeline leak detection	109,000
Chemicals and trucking	48,512,000
Power and natural gas	79,667,000
Waste disposal	2,484,000
Operations personnel	19,372,000
Miscellaneous cost	5,380,000
Total Average Annual Opex	$187,404,000

With the reorientation towards exclusive focus on Lithium carbonate as the end-product over Lithium hydroxide in Phase One there are clearly implications for the Opex portion of the findings of the PFS of mid-2024. Management have suggested that there shall be some minor savings on unit Opex.

From these tables we can clearly see that energy costs are far and away the largest category at over 40% of the total. The power for the well pads will be a variable cost.

Annual Cost of Power
US$

Well pad power	38,520,000
Central Processing Facility	41,145,000
Total av. annual cost of power	79,667,000

The chemicals expense is strongly correlated with the discontinued Lithium hydroxide scenario so should be substantially reduced.

After chemicals, the third largest component was maintenance where a 3% allocation of equipment capital cost was used for the pipeline maintenance estimate, and a 4% factor was used to estimate the well pad and Central Processing Facility maintenance costs.

Several operating cost items are obviously common to either a Lithium hydroxide or Lithium carbonate outcome, such as the well and pipeline costs, however there are indications that there may be more wells in the revised development scenario to accommodate the increased number of DLE trains which could cause an increase. Fixed costs include ongoing operating expenses related to production and injection wells such as well workovers, well pad lease and costs for berm maintenance, and minor earthworks. Variable costs depend on production rates and include corrosion inhibitor for the production wells.

The PFS suggests that the workforce will be around 150-200 strong and this number is not expected to materially change as a result of the phased approach, although it will take longer to ramp up to the full annual amount estimated.

Thus, there shall be savings on personnel, energy, maintenance and most prominently from chemical consumption from the changed end-product, but possibly higher costs from a greater number of well-pads and infrastructure, therefore.

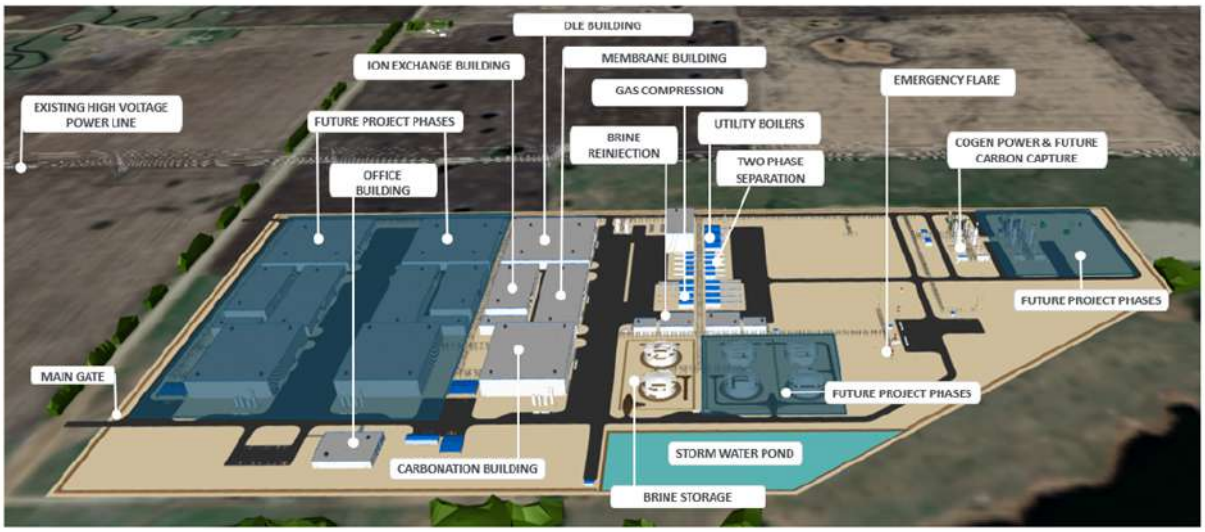
The Central Processing Facility

This facility will include the following major process units:

- Brine degassing treatment and acid gas handling
- Lithium recovery from the brine by direct Lithium extraction
- Lithium-depleted evaporative water recovery and reinjection
- Lithium chloride purification and concentration by nanofiltration, reverse osmosis, ion exchange, and mechanical vapor recompression evaporation
- Lithium chloride carbonation to Lithium carbonate

A schematic of the central processing plant can be seen below:

Central Processing Facility



From Pilot Plant….

During 2023, the company undertook Pilot Plant operations. In mid-October, it announced that it had completed all the milestones of the pilot project, which had been funded by Critical Minerals Research, Development and Demonstration (CMRDD) program of Natural Resources Canada's (NRCan) The total support from the CMRDD program was a CAD$3.5mn grant. This funding was directed towards field pilot operations using Direct Lithium Extraction (DLE) technology.

The Pilot Plant demonstrated DLE technology at scale, achieving high Lithium recovery from brines with high flow rates. The pilot project provided essential data that was incorporated into the recently released Pre-Feasibility Study (PFS).

… to Demonstration Facility

Next up is the Demonstration Facility which is planned to be brought on stream in three phases through the second half of 2025 and into 2026. The funding of this was kickstarted by Alberta’s government granting CAD$5mn through the Emissions Reduction Alberta Technology Innovation and Emissions Reduction (TIER) fund.

The three phases of the Demonstration Facility are shown graphically in the process chart on the following page:

Demonstration Facility – Phased Approach

A phased commissioning approach will enable testing of each component of the fully integrated facility flowsheet

Phase 1:
Commission DLE Process and Polishing Skids

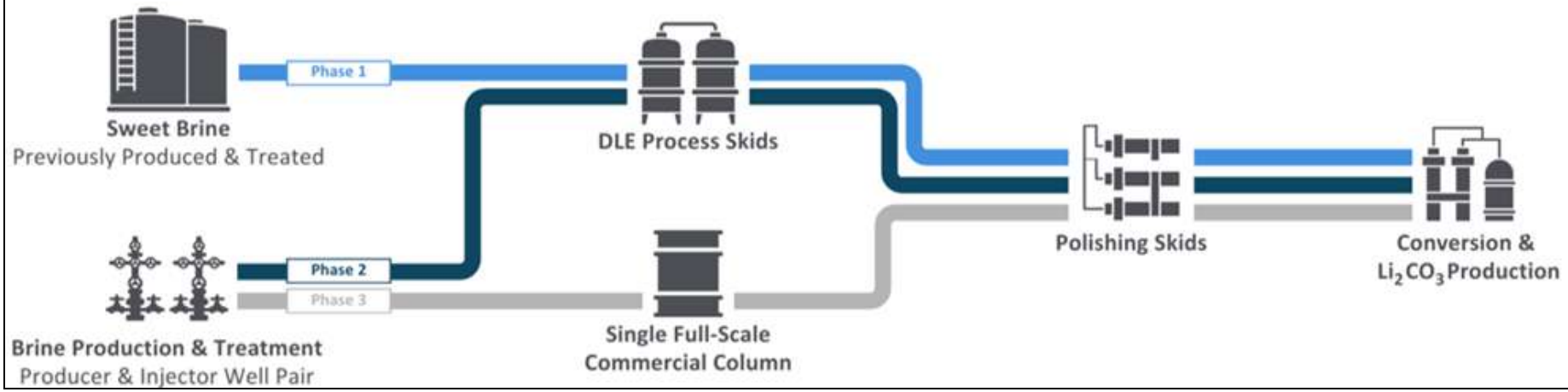
A 30-column scaled process optimization DLE system and purification equipment and battery-grade lithium carbonate production

Phase 2:
Wells & 30-Column DLE Operation

Two wells will be drilled for reservoir tests, live brine production testing, and to support data collection for the Feasibility Study

Phase 3:
Single Column Operation[1]

A single full-size commercial-scale DLE column will be operated to validate performance and to support project financing and strategic partnerships



Each phase of the Demonstration Facility is designed to validate the process technology and the ability to produce battery-grade Lithium carbonate from Leduc Brines at scale. The key objective of the Demonstration Facility is to de-risk the project design for the full commercial-scale Clearwater Project as E3 Lithium progresses towards completion of the Feasibility Study and securing of project financing.

- Phase One's goal is for successful commissioning of fully functioning field operations along the entire process flow from direct lithium extraction through to the polishing and purification stages has the goal of fully operationalizing the DLE system and associated polishing and purification units and to produce a high-quality Lithium chloride, which will support the production of battery-grade Lithium carbonate.
- Phase Two, which has just received its permits, will consist of drilling two new wells (production and injection) for production testing to support data collection for the Feasibility Study.
- Phase Three will consist of constructing a single full-sized commercial-scale DLE column which will be operated to validate performance.

The Lithium extraction equipment for Phase One is comprised of five separate skids, each containing a specific operation: DLE system including the 30-columns and the value controls, the polishing and purification equipment (the Purification Units) and the control center.

Phase One will consist of a 30-column process optimization skid with a 12 m^3/day brine flowrate, which will operate a valve array and computer control system that mimics the commercial design from a process operations perspective. This phase will use brine hosted on site for the commissioning and operation of the 30-column system equipment to produce battery-grade Lithium carbonate.

It is expected that shortly after the drilling of the wells in Phase 2, the production well will be tied directly into the 30-column equipment and operate using a “live” brine feed. This fully integrated system will enable E3 Lithium to optimize the process for factors such as recovery and flow rates and will provide important data for use in the design and costing of the commercial facility.

The Lithium carbonate produced will be used for customer evaluation and to potentially begin pre-qualification.

Installation of Phase Three is expected to begin in early 2026. This will consist of a full-size single commercial column with a maximum 800 m^3/day brine flowrate, which will operate in the same manner and volume as the planned commercial design to confirm recoveries and operating details. This aims to provide commercial scale data that will be applied directly to the full-scale design.

- In the first days of September the company began the commissioning of Phase One of the Demonstration Facility. Impressively this was on schedule. Phase One involves operating the 30-column DLE system and the polishing and purification equipment. The objective of Phase 1 is to activate, as in a full production scenario, the DLE System and Purification Units to produce a high-quality Lithium chloride, which will support the production of battery-grade Lithium carbonate.

Final testing and operational reviews were completed in the last week of August. The first stage of commissioning is the introduction of brine into the DLE system was achieved. The company has sufficient brine on site to enable the operation of the Phase One DLE and purification units into early 4Q25.

The main goals of Phase One are to ensure the equipment is in operating order after assembly, confirm both systems functionality under real-time operating conditions and produce a high-quality Lithium chloride for conversion into battery-grade Lithium carbonate.

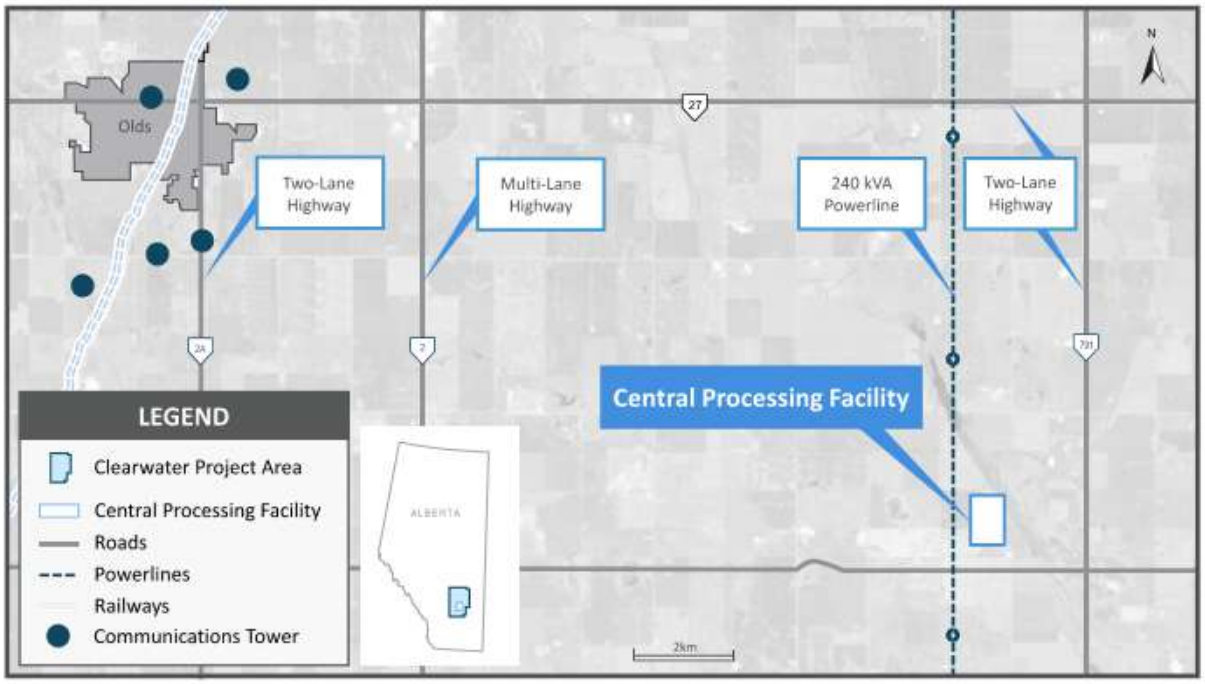
Several weeks into operations, management confirmed the successful production of battery-grade Lithium carbonate and that the field site for Phase One is fully operational along the entire process flow, from DLE through to the polishing and purification stages. Lithium chloride produced from the Demonstration Equipment has now been successfully converted to lithium carbonate with an average purity of 99.70%.

Four separate samples were collected from some of the first lithium carbonate produced and analyzed for purity, averaging 99.70% Lithium carbonate. The analysis was conducted in E3 Lithium's lab following the ISO TC 333 testing methodology that is being validated in part by E3 Lithium and the participation in the mirror committee. Samples shall now be sent for 3rd party analysis and verification.

Phase Two of the Demonstration Facility includes the drilling of a production and injection well pair that supports reservoir development activities and enables continuous Lithium carbonate production from the Clearwater brine feed. Phase Two operations will deliver operational and engineering data that will feed the development of the Feasibility Study and support the Final Investment Decision on the Clearwater Project.

Access

The Clearwater Project is located in central Alberta, between the cities of Olds and Calgary. Olds is located at the junction of Alberta Provincial Highway 2 and Highway 27. Highway 2 is the main corridor between Edmonton and Calgary and runs north–south along the west boundary of the Clearwater Project area. The literal "gridlike" nature of the Albertan plains is patently evident when looking at the map below:



Major and secondary provincial highways, and all-weather roads developed to support oil/gas infrastructure, occur throughout the permit areas. Additional access is provided by secondary one- or two-lane all-weather roads, and numerous all weather and dry weather gravel roads. Grid roads run every mile throughout the Project area, providing access year-round.

Two rail lines (Canadian National and Canadian Pacific + Kansas City Southern) are present throughout the area and connect to the major centers of Edmonton and Calgary, which both have international airports.

Infrastructure

The site is located adjacent to major power infrastructure.

In November of 2024, it was announced that the company had secured a strategic brownfield site for the Central Processing Facility of the Clearwater project. This site is located on the former Dyck Gravel Pit land in Mountain View County. The end-of-life gravel pit is centrally located in the Clearwater Project area to the east of Olds, Alberta.

The county administration and E3 Lithium had accorded upon a strategy of limiting new disturbances in the area, and this led to the acquisition of a brownfield site to repurpose industrial land in order to help reduce overall project disturbance.

Power Generation

In its plans for the power supply to the facility and the well pads, E3 Lithium is seeking a third-party to construct and operate a cogeneration facility to be located adjacent to the Central Processing Facility. The facility will require an electrical power supply of approximately 85 MW, and field production infrastructure, dominated by downhole pump requirements, will require approximately 80 MW.

The facility will include natural gas-fired turbines.

A portion of the steam generated from waste heat will be used within the Central Processing Facility to satisfy all utility steam requirements during normal operations.

By-Products

As we have noted elsewhere in the past, Lithium brines frequently come with an extensive array of by-product elements (e.g., potassium, boron, and bromine). However, the technical reports of the company make clear that, at this stage of exploration, there is no guarantee that associated elements would be economically extractable from the brine with current technology.

Permitting Process

As noted earlier, the Alberta Energy Regulator (AER) is the regulatory authority responsible for overseeing brine-hosted minerals development. With so many decades of approving energy projects that resemble, in so many ways, the brine lifting and transporting process, one can be fairly confident that the permitting process will have few “unknowns” to the regulator and thus may indeed be a smoother process than in a mining operation, for instance.

Below can be seen the steps in the applications and approval process:

Key Permits Required for the Clearwater Project[1]	Application Status
Demonstration Project – Phase 2	
Directive 056: Wells	**Approved**
Directive 056: Facility	**Approved**
Directive 065: Resource Applications	**Approved**
Directive 051: Injection & Disposal Wells	Apply post drilling
Clearwater Project	**Estimated Submission**
Directive 056: Wells & Pipelines	2026
Directive 056: Facility	2025
Directive 065: Resource Applications	2026
Directive 051: Injection and Disposal Wells	Apply post drilling
Environmental Protection and Enhancement Act (CPF only)	2025
Alberta Utilities Commission: Rule 7 (CPF only)	2026
Municipal Development Permit (CPF only)	2026

Financing

The most recent financing was in September of 2023 when the company undertook a bought deal public offering of 6,486,000 common shares for gross proceeds of CAD$23,025,300, which included the full exercise of the overallotment option for proceeds of CAD$3,003,300.

The total of past equity financings is CAD$76.7mn. The total of past equity financings includes equity received through the exercise of warrants associated with the respective financings:

Financings - History

CAD$

Year	Raise	$ per share	Warrant Strike
2023	$23mn	$3.55	$3.55
2023	$5.6mn	$2.25	n/a
2021	$8.1mn	$1.19	$1.65
2020	$8.5mn	$0.85	$1.40
2020	$2.6mn	$0.40	n/a
Pre-2019	$4.7mn	$0.35-$0.70	$0.40-$0.60

As of the 30th of June 2025, fully diluted shares outstanding include 7,242,750 Options, 815,000

Restricted Share Units, 683,600 Performance Share Units and 324,300 Broker Warrants with an Exercise price of $3.55 are set to expire on the 26th of September 2025.

Government Support

Some of the company´s developments in recent years have been funded by grants, and other disbursements from government, thus keeping the share countdown at a time when many other companies are brutally diluting to fund exploration and development. Since 2017, E3 Lithium has secured approximately CAD$41.9mn in funding support from both the provincial and Federal governments.

Governments, both national and provincial, have increasingly been seen as talent-spotters. At least in the case of Alberta, the government does not have any other realistic claims upon it in the Lithium space beyond E3 Lithium. Indeed, its project is also somewhat of a continuity story originating as it does from past producing oil/gas fields, which are very much within the knowledge set of the province´s oversight and funding bodies.

The most recent grant, came from the Federal government, was in March of 2025 when E3 Lithium was the recipient of CAD$4.4mn in non-repayable funding from the Critical Minerals Infrastructure Fund (CMIF). The Canadian Critical Minerals Strategy aims to drive the transition to a low-carbon economy by advancing critical mineral development through a collaborative and adaptive approach with partners across Canada and internationally. A key initiative under this strategy, CMIF aims to provide up to CAD$1.5bn in federal funding until 2030 to address infrastructure gaps, support clean energy, and enable sustainable critical minerals production.

Effectively, the March award was a grant, under terms of which E3 Lithium will receive reimbursement for 50% of eligible expenditures up to the total $4.4mn allocation. The funds will be used to undertake preconstruction work on the necessary transportation and energy infrastructure to develop the Clearwater Project. This includes facilitating electrical connection and substation power studies, transportation assessments, and the associated engagement initiatives, which are key deliverables for supporting the Demonstration Facility and planned Feasibility Study.

Conjuring with Potential Partners

The days of the Lithium Cartel being a few well-known names and the wide range of users being price takers are now receding into history. Since the start of rise of the Lithium-ion battery as a key part of the EV Revolution the perception has arisen that producers need to tie up with end users or at least battery makers (as the midstream). Perceptions have also oscillated as to who has the whiphand in these relationships. One-to-many relationships between producers and users were replaced with one-to-one relationships or at least “most favoured offtaker” arrangements. Such was the white heat of this partnering-up process that companies such as Lake Resources (ASX: LKE) could spurn global majors after having inked offtake accords with them.

Now the boot is on the other foot. The likes of Lake Resources are now much diminished and left like wallflowers at the ball. OEMs in the US, in particular, feel like they have the luxury of time AND choice at the moment with weakening mandates at the government level while prices for different Lithium formulations are down and supply appears abundant. Over and beyond government mandates, a combination of economic malaise, high EV prices, poor charging infrastructure and weakening mandates across many Western economies is resulting in consumer lassitude in switching to HEV and EV formats. Accordingly, OEMs in Europe are not in strong financial shape and are wary of splurging on relationships with Lithium suppliers, particularly when they have the feeling they can obtain all that they foreseeable need at current (and mooted medium term) take-ups.

Meanwhile the Global South is largely disinterested and demotivated with regards to the “revolution”.

Having said all that, nearly all of the above OEMs have not secured future guaranteed supplies via taking stakes in potential producers. Examples of those who have are Stellantis, with their stake in Argentina Lithium & Energy and Volkswagen´s arrangement with Patriot Lithium, both of which might ultimately prove to be non-starters.

Then there is the Federal government of Canada as a potential investor. This would be the strategic outcome that provides the potentially greatest uplift for E3 Lithium. We would call this the “national champion” (or MP Materials) strategy, where Ottawa sees the underground and other spodumene options going to the wall and makes it bet on the brine survivor. This could have the same electrifying effect for E3 Lithium that the Trump Administration´s “bet” on MP Materials in the Rare Earth space did. It effectively becomes a self-fulfilling prophecy, creates a surging market cap, raises investor interest and gives the company enhanced money raising ability due to the imprimatur (and, moreover, stake) of the Canadian Federal government.

Board

Chris Doornbos, Chairman, President, CEO & Executive Director, has a broad range of experience in developing mineral projects across the globe. This experience covers the spectrum from greenfields exploration to advanced project development. He has a strong technical background and has successfully driven projects through to the development stages including a successful track record of expanding resources via innovative thinking. He has experience in capital raising both privately and publicly, assisted in the founding of public junior mining companies and the sale and acquisition of mineral properties. He was the CEO/Director of Revere Development Corp. and Vice-President of Exploration for MinQuest Ltd.

Alexandra Cattelan, non-executive director, has more than three decades of experience leading electric propulsion and advanced mobility programs, Lithium battery development, software controls systems and other technologies in automotive, boating and power sports applications. She has held senior leadership roles including Chief Technology Officer at Brunswick Corporation and has held progressive roles at such organizations as Polaris, Stellantis, Johnson Controls, AVL and General Motors (US and Canada). She was also General Motor’s representative in the 2004 Governor General’s Leadership

Council, chaired General Motor's Women's Advisory Council and currently serves on the board of directors for Braunability, a leading manufacturer of vehicle adaptation solutions for people with limited mobility.

Hon. Sonya Savage, non-executive director, began her career practicing law before working for 13 years in the pipeline industry at Enbridge and the Canadian Energy Pipeline Association. In 2019, she was elected and served for four years as a Senior Minister in the Alberta Government as Minister of Energy, Minister of Environment and Protected Areas and Minister of Justice and Solicitor General. During her time as Minister of Energy, she oversaw the development of Alberta's energy and mineral resources, and implemented policies, legislation and regulations to enable critical mineral development, including brine-hosted minerals, in the province. She earned a Master of Laws in Environment and Energy in 2015 with a published thesis on the evolving role of the National Energy Board and is currently Senior Counsel at Borden Ladner Gervais LLP (BLG).

Kevin Stashin, non-executive director, is an oil and gas executive with over 40 years of industry experience with both junior and major companies, including Devon Canada Corporation, Anderson Exploration, and Petro-Canada. His expertise includes over 20 years as an executive in various business, technical and management roles including developing strategic direction, organizational effectiveness, reservoir development, new ventures, production, operations, and business development. He is currently a member of APEGA, APEGS, and the Society of Petroleum Engineers.

Tina Craft, non-executive director, has over 30 years of chemical industry experience and has held several leadership roles during her 27-year tenure with Albemarle Corporation. As Chief Commercial Officer for the Lithium division, Chief Commercial Officer and Global Vice-President of Sales for the Bromine division and most recently Chief Commercial Officer of Catalyst serving the Oil and Gas industry at Ketjen, a wholly owned subsidiary of Albemarle, she has led the development and execution of global growth strategies for emerging and transitional business. She received the Charlotte Women in business award in 2019 and has previously served on the Association of Water Technologies board, Co-chair of AFPM Petrochemical board, Board member of Electric Drive Transportation Association and Board member for the Central and Western North Carolina Chapter of Make-A-Wish as well as founding member of Women Connect a leadership and development program.

Risks

Investors should note the following risks:

- ✕ Lithium prices retreat further or remain at low levels
- ✕ Governments backtracking on EV mandates
- ✕ Actions by other rights holders in the Leduc Formation could impinge upon E3 Lithium´s production plans
- ✕ Financing difficulties

The Lithium 1.0 boom ended with a vengeance in 2010-11. Then Lithium 2.0 fired up in the middle of

last decade only to come to grief rather swiftly. Prices retreated somewhat in late 2016 and then recovered in 2017 despite several projects moving into production. Lithium 3.0 fired up just before the pandemic when the dreams of EVs started to become reality.

Generalised perceptions of excessive supply, either current or prospective are definitely suppressing prices at this point. Until recently boosters for Lithium have been able to argue that as demand is expanding with significant vigour, that supply overhang will be devoured by increased EV building around the globe. The argument goes that demand´s rise is a rising smooth curve while supply is of a rising stepped nature, thus oscillating between periods of oversupply and undersupply. Some, including ourselves, would argue that, as in Lithium 1.0, many of the "likely" projects will not be built as they are in the hands of pure promoters.

Some governments are weakening, or prevaricating, on the timeframes for EV mandates. Even worse, consumers in some jurisdictions are reacting to cost of living pressures and the high costs of EV´s in Western markets adopting a "can´t pay, won´t pay" attitude. The Trump administration has made its disinterest in the energy "transition" and the EV revolution patently clear. This has massively disincentivized the OEMs based in the US or foreign OEMs with plants there from making significant new or expanded bets on these technologies. The prospect is for future Republican administration to continue in this vein, while Democrat alternatives have, in some cases realised that Biden era forced conversion therapy to EVs alienated some of their core constituencies.

Enhance Energy Inc. is a company engaged in the business of storing CO_2 emissions with around seven million tonnes of CO_2 emissions permanently stored at project sites in Central Alberta. In early 2025, Enhance submitted an application to the AER for approval to inject CO_2 into the Leduc Formation in the Woodbend Group in the northern section of the Bashaw District, approximately 100km north of E3's initial production facility and would not impact the development of the Clearwater Project. E3 Lithium, and around 35 freehold mineral rights holders, have filed their opposition to the application. The company sustains that it could produce Lithium with subsequent injection of CO_2 or Enhance could dispose of CO_2 in one of the many aquifers that do not hold mineral value as the Leduc does, enabling a simple and amicable solution.

Financing is an ever-present preoccupation of the developers of Lithium projects. There is a distinct feeling at the current times that there are too many Lithium projects out there and that those projects that are outside the perceived winner categories in the short or medium term have a forcefield around them that investors will not cross.

Investment Thesis

The Lithium developer space is transiting a very wide and barren patch of scorched earth at the moment. After years of domination by what was effectively a cartel of less than a handful of players, the space was cracked open by the dawn of the age of the EV/HEV and its various associated battery formats. Price discipline, which had been enforced by supply restraint, collapsed into a free-for-all that augured a golden age. Animal spirits turned into a feeding frenzy and oversupply loomed. The icing on

this cake was a “just ignore it” speculative Lithium price bubble within China which came to grief as expected but then produced a confidence shock that it was impossible to ignore. The collateral damage is those producers at the higher end of the opex scale (largely hard-rocker Lithium plays) and almost all explorers that had not significantly advanced when the shutters were pulled down. Thus, ended what was the third Lithium “boom” in fifteen years. How many times do souffles rise again?

As we have noted the spodumene players are doomed to be taken out “behind the barn” and dispatched with a not so merciful bullet.

An increased perception by the market of the “death foretold” for hard rock and other “solid” Lithium formats will be helpful in sorting survivors from victims of the new realities of the Lithium and EV space.

Rationale and Valuation

If Canada is going to have a surviving Lithium production industry, E3 Lithium is likely to be it. The perspective for underground spodumene producers is grim. Likewise, the perspectives for James Bay spodumene developers look unpromising. This leaves E3 Lithium as the sole brine player of substance. This should make it the prime beneficiary of government support but, politics being what it is, scant funds will have to be “fairly” distributed even if some of the other players fall into the no-hoper category. As Canada does not have an electronics industry to support Lithium-ion batteries for those formats (laptops, mobile phone etc.) the only vertically-integrated justification for Lithium-ion battery production is the auto industry of which the domestic industry is closely coordinated with, and dominated by, US OEMs. To what degree can Canadian government subsidies be seen as justified when the beneficiaries will mainly be US-owned auto makers and US auto buyers?

One could point to the Volkswagen investment in Patriot as a potential model, but we see that as throwing good money after bad and the funds they dedicated being to show the politicians in Berlin they were doing something, even though the Lithium currently being used in the German auto industry is coming from Latin American or maybe Australia. The Japanese have made no strategic investments of great import and have come to be seen as the smartest guys in the room for having (not) done so.

Thus, the strategic outcome that provides the potentially greatest uplift for E3 Lithium is what we would call the national champion (or MP Materials-strategy) where Ottawa sees the underground and other spodumene options going to the wall and makes it bet on the brine survivor. This could have the same electrifying effect for E3 Lithium that the Trump Administration´s “bet” on MP Materials in the Rare Earth space did. It effectively becomes a self-fulfilling prophecy, creates a surging market cap, raises investor interest and gives the company enhanced money raising ability dud to the imprimatur (and, moreover, stake) of the Canadian Federal government. Thus, a strategic investment from government, for the sake of argument, at the project level of CAD$300mn could be transformative of not only perceptions, but realities. This might propel E3 Lithium to a market cap of CAD$500mn or even over CAD$1bn but requires certain specific things to happen.

In the short term though we would note that the FS will not likely be out until mid-2026, leaving the

market guessing in the meantime as to what the three-phased approach might look like, what its CapEx will be (and thus financing need in the short and longer term) and how OpEx might be lowered to deal with the changed realities of the brutal competition in the Lithium space. Thus, the share price move in the short-term will come from derisking and evolution of the Demonstration Facility, in the absence of the arrival of a "strategic investor". Such an investor, particularly government, might be able to move pre-2026, but we doubt that a purely commercial player (OEM or battery maker) would make this leap without eyeballing the revised sequencing that the FS is planned to outline and cost.

The stock has recovered strongly in recent times. The latest surge to over CAD$1.80 was on serious signs (in the wake of the ascension of the Carney administration) of government support/interest in such projects, not on some illusory benefits from mothballing a couple of second-rate Chinese Lithium (lepidolite) mines. This, we believe, shows the stock can trend up on government positivity towards the Lithium development space, even in the absence of a government investment deal. Such a deal, if it were to happen, could put the stock price, 300% or more, higher

We added E3 Lithium as a LONG to our Model Resources Portfolio earlier this year and we are now initiating E3 Lithium with a **LONG** rating and a twelve-month target price of CAD$2.55.

APPENDIX I:
Lithium – The Brine Ascendancy

Rock/Paper/Scissors/Brine

In the US retail trade, there is a concept known as the "category killer". This is a retailer or product that is so successful that it dominates its category and forces out less competitive businesses (an example being Toys R' Us, in its heyday). One could liken the position of Lithium from brines to a category killer in that the dramatic swing in prices which we have seen in the last twelve months, has shown that Lithium-rich brines win on price, ease of production and jurisdiction.

For those who don't like, or understand, that comparison maybe we could revert to the even more primeval concept of the children's game of rock/paper/scissors/stone, in which one category eliminates some, or all, of the others. Once again, Lithium brines are the winners and stone (in this case spodumene/lepidolite/micas) is at a distinct, and potentially fatal, disadvantage. This rings the death knell on many underground projects and those that are in outlandish locations, such as James Bay.

That we feel that brines come out on top is patently clear and the jurisdictions so blessed are Argentina, Chile and Bolivia (with Chinese brines having a home team advantage). Chile comes behind Argentina due to its ingrained *dirigiste* tendencies which have transcended civilian and military administrations and those of Left and Right. The Chilean government just cannot help meddling and particularly picking "champions" in the form of quasi-statals (dare we call them SOEs) such as Codelco and ENAMI, and favoured sons such as Soquimich. It then wields the carrot and stick, with vehemence, ramming foreign interlopers into partnership with these troglodytic organisations.

Then there are the Bolivians with their tendency to back one horse (rather than many) and then deciding to change horses halfway thru the race. But that was under the left-wing governments of the last 20 years (Morales and others). The first round of the recent Presidential elections shows that the next president will be from the Right or from the Right. This augurs well for sidelining the Chinese and potentially a massive push to getting the *Salar de Uyuni* operating as the world´s premiere salar-brine source. If there was any hope left for hard rockers in the Lithium space, it just evaporated (pardon the pun) with this election result.

As we noted earlier, there is more to brines than just *salares,* with the petro brines and thermal brines developers evidencing this. E3 Lithium and Standard Lithium represent the main standalone petro brine players while the likes of Vulcan and Cornish Lithium are pursuing thermal sources, the former in Germany and the latter in England.

Chevron Enters the Fray

If further evidence of the ascendancy of brine over hard rock modes of Lithium mineralisations was needed, it comes in the form of the drip feed of announcements by global blue chips entering the fray. Beyond Rio Tinto hoovering up brine assets in Latin America and automobile giant Stellantis positioning itself there is the persistent interest of first tier oil majors in a niche that one would not have thought to be of sufficient scale to interest them. But that has not proven to be the case, with two of the original Seven Sisters staking out their intentions in the petroleum brine space in North America. We presume that this represents some sort of hedging of bets against the rise of one technology (EVs) over the decline of another (ICEs).

In mid-June of 2025, Chevron acquired two leases on 125,000 acres of land in Northeast Texas and Southwest Arkansas for the purpose of extracting Lithium. These were acquired from TerraVolta Resources and East Texas Natural Resources. Chevron styled its acquisition of the acreage as a "first step toward establishing a commercial-scale, domestic Lithium business."

The acreage is located in the Smackover Formation, a geological area that stretches from East Texas to Florida and is known for its rich Lithium brine deposits. In fact, researchers last year determined there could be anywhere from 5 million to 19 million tons of Lithium in the formation.

Other multinational energy corporations are in the Smackover Foundation, including ExxonMobil, which has about 120,000 acres in the formation and operates from a production facility in southwest Arkansas. There is also the alliance between Standard Lithium (TSX-V: SLI | NYSE-American: SLI | FRA: S5L) and Equinor.

Pricing – Canary in the Coal Mine

How much does the Lithium spot price(s) represent the real picture in the Lithium space? Clearly at its very peak the Lithium Carbonate price in China was being driven by frenzied, largely retail, speculation and almost everyone in the Western industry (upstream and downstream) flagged it as a situation that could not last and neither were they using those prices as indicative of where the market might be in the near future in their calculation of PEA/PFS/BFS studies and/or offtake accords.

Forewarned was not forearmed though, for when the long-expected reverse happened, the psychological effect was to suck down sentiment brutally, even though economics were not altered because the elevated prices had not figured in calculations.

What did happen though was that high prices were seen as endorsement of projections of soaring Chinese (and Western demand). This led swiftly to a scenario of strong supply growth in brine-sourced Lithium Carbonate and Hydroxide while the overshoot of prices to the downside put most spodumene producers at break-even, or worse. Their response was to maintain production to remain in contention for M&A activity (as targets). The Biden era Inflation Reduction Act further juiced up the production side despite the pricing side deterioration.

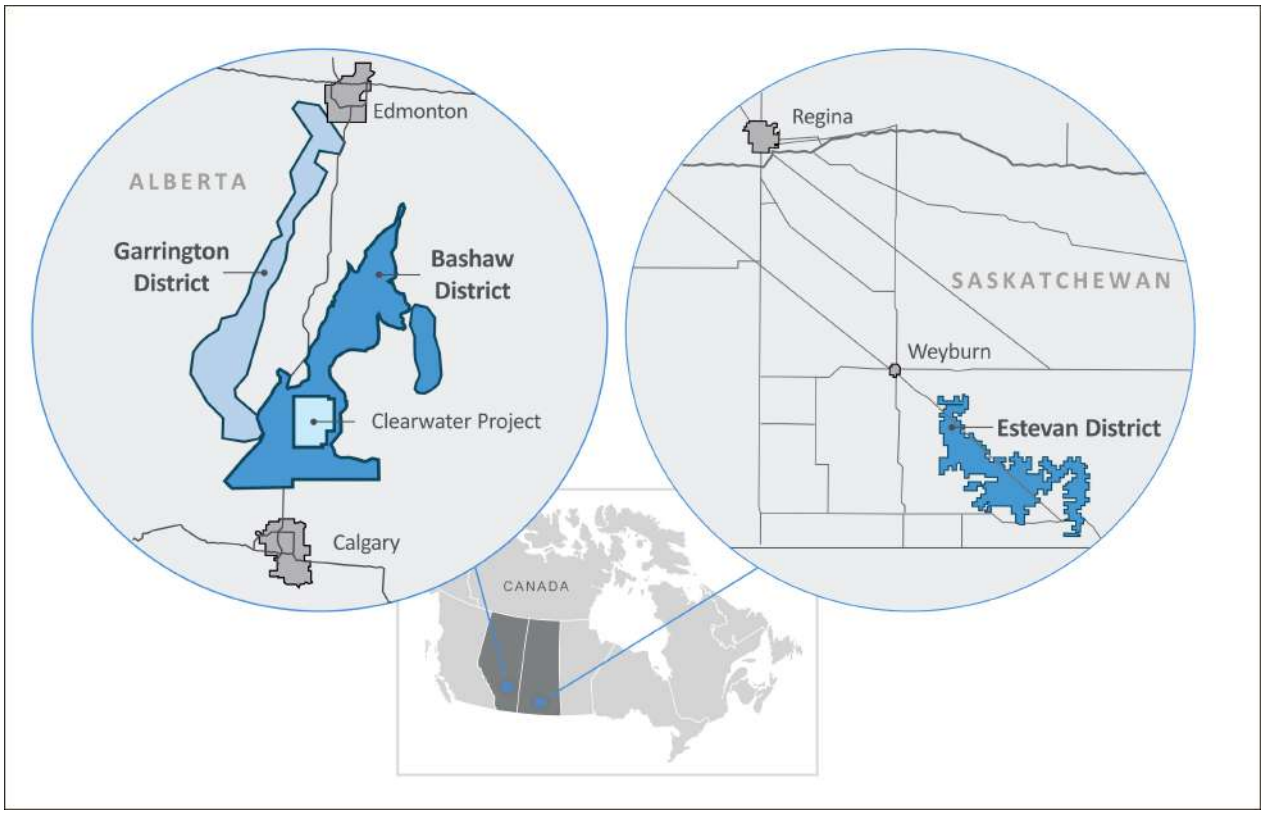
Source: Lithium Prices, Data & Market Analysis | Benchmark Mineral Intelligence

APPENDIX II:

Other Assets

Estevan

This project is located in Saskatchewan. E3 Lithium acquired this property, situated near the city of Estevan, in 2021. The permit area covers approximately 67,000 hectares of crown mineral permits within the Estevan Lithium District.



Recent Lithium exploration near E3 Lithium's land holdings have shown high Lithium concentrations, including up to 259 mg/L in the Duperow Formation. The elevated Lithium concentrations of interest exist within the Duperow Formation were broken down into six distinctive zones based on geological characteristics.

The Estevan Resource

In June of 2024, the company announced its inaugural MRE for the Estevan project. The MRE was completed by a multi-disciplinary team led by E3 Lithium and supervised by Alex Haluszka and Jason Clarke of Matrix Solutions Inc. acting as QP.

The result was an Inferred Resource of ~2.5 million tonnes LCE contained within the Estevan Lithium District.

Estevan MRE

Category	Brine Volume (m^3)	Weighted Average Li Grade (mg/L)[2]	OLIP (t Li)[3]	OLIP (t LCE)[3]
Inferred	5,091,000,000	n/a	478,000	2,545,000

Garrington

The Garrington District is located in south-central Alberta, directly southwest of the city of Edmonton at the north end, and it extends southwest of Edmonton to the town of Sundre. Its relation to E3 Lithium's main target is shown on the map on page 3. Within the Garrington District, the company's brine-hosted mineral rights cover approximately 155,236 ha, leased from the crown, with the remaining area being unleased freehold mineral rights.

The Garrington Resource

In late June of 2025, the company announced an updated mineral resource report for the Garrington District. The NI 43-101 Technical Report for the Garrington District Lithium Resource Estimate outlines an updated Measured & Indicated mineral resource estimate of five million tonnes of Lithium carbonate equivalent (LCE) and an Inferred mineral resource estimate of 0.3mn tonnes of LCE.

Garrington MRE

Category	Brine Volume (m^3)	Weighted Average Li Grade (mg/L)[2]	OLIP (t Li)[3]	OLIP (t LCE)[3]
Measured	560,000,000	55	30,000	163,000
Indicated	17,005,000,000	54	905,000	4,817,000
Total Measured & Indicated	**17,565,000**	**54**	**935,000**	**4,980,000**
Inferred	1,485,000,000	42	60,000	319,000

The Garrington District covers 273,449 hectares of land.

The Lithium concentrations on or near E3 Lithium's land holdings range from 45 mg/L to 61 mg/L, with an average of 54mg/L.

The property sits directly to the west of E3 Lithium's Bashaw District with its Clearwater Project. Similar to the Bashaw District, the Garrington District Lithium brine deposit is hosted in the carbonate reef complex deposits of the Leduc Formation. We shall now dwell here on the Garrington potential as this is clearly more upside for E3 Lithium but further down the track after Clearwater is up and running.

E3 Lithium's total Measured and Indicated mineral resources in Alberta is now 21.2mn tonnes of LCE including both the Garrington District and Bashaw District.

APPENDIX III:

The Pure Lithium JV

On Pure Lithium

Nothing succeeds like practical applications these days in the Lithium space. In August 2024, E3 Lithium signed a Joint Development Agreement with Pure Lithium Corporation, using E3 Lithium's Leduc brines and DLE technology and Pure Lithium's extraction and battery technology to manufacture battery cells.

Pure Lithium is a disruptive Boston-based Lithium metal battery technology company led by inventor and Lithium expert, CEO Emilie Bodoin, and its full-time CSO. Pure´s Brine to Battery™ technology combines metal extraction and anode production, unlocking unconventional sources of Lithium. The resulting pure Lithium metal anode is the core component of Pure's Lithium metal Vanadium oxide battery, a step-change improvement over today's Lithium-ion technology in cell performance, cost, and safety. The battery is free of Graphite, Cobalt, Nickel, and Manganese.

The Technology

In mid-March of 2025, several variations of Lithium chloride concentrate that reflect specific locations along the E3 Lithium process flow sheet within the commercial facility design were used to make Lithium metal anodes at Pure Lithium's Boston facility. The Lithium from the E3 Lithium concentrated Lithium chloride was electrodeposited as pure Lithium metal onto a copper substrate, creating a complete, battery-ready anode. These anodes were then assembled by Pure Lithium into batteries, and their electrochemical performance was evaluated in full cells. Notable results include:

- Lithium Metal Purity: The various E3 Lithium brine streams all achieved a very high purity level, > 99.9% pure Lithium metal as tested by ICP-OES analysis.
- Cell Performance (Life Cycle): This tests for the number of charge and discharge cycles the battery achieves while retaining 80% of its capacity. All cells achieved over 500 cycles to date.
- Charge and Discharge Rates: This tests for the duration of a charge and discharge. These tests were conducted at a 1C:1D ratio, one hour charge time and one hour discharge time.

First Results

In late May of 2025, E3 Lithium announced the initial results from the battery cells manufactured under the Joint Development Agreement with Pure Lithium.

The results of this study concluded that an easily producible version of E3 Lithium's concentrate provided the most cost-effective feedstock for use in Pure Lithium's batteries. It also demonstrated the robustness of Pure Lithium's process, showing no performance differences between batteries made using Lithium chloride from the Leduc Brines, and those made from Pure Lithium's standard sources. The two companies continue to collaborate on the development and planning of an integrated process that can deliver the highest purity Lithium metal anodes at the lowest possible cost.

Important disclosures

I, Christopher Ecclestone, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

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