September 2025

FRONTIER LITHIUM

NEWS from the Junction

PAK Project update: Two important studies released

It's been a difficult summer for many communities, between evacuations and other emergencies. Frontier Lithium recognizes how difficult the forest fire situation is, and the challenges faced by First Nation members.

With wetter and cooler weather coming in, we feel it's time to provide you with some important updates on the PAK Lithium Project, including progress on two key studies that help us finalize details of the project.

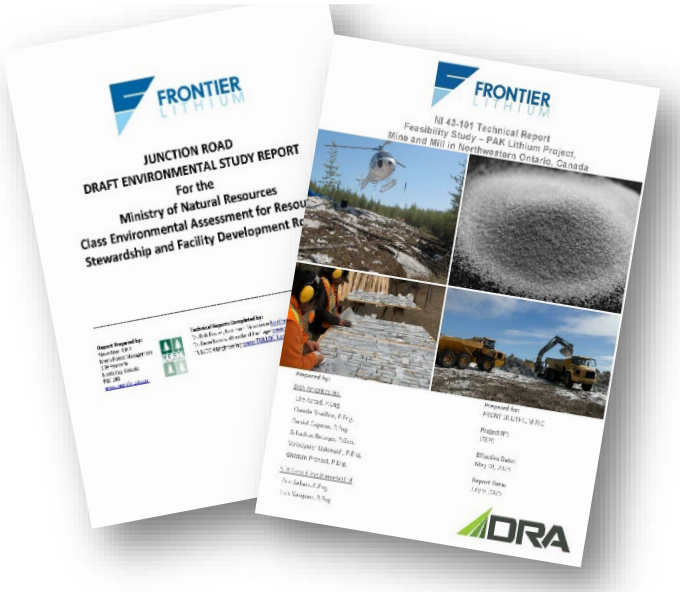
Definitive Feasibility Study (DFS)

The first is the DFS which we have been sharing updates about through our newsletters for the past year. We are happy to share that the DFS was completed and issued in June.

It is one of the final studies before a company decides whether to build a mine. It includes more detailed engineering, cost estimates, and environmental planning. The DFS shows whether the project can be built safely, responsibly, and profitably.

It builds on earlier studies such as the Pre-Feasibility Study (PFS) by using more advanced designs, more drilling data, and updated market information. In short, the DFS helps everyone, including communities, investors, and governments, make better-informed decisions about the project's future.

"The Feasibility Study gives us a much clearer picture of how the project will take shape," said Clara Lauziere, Director, Sustainability. "This helps communities have full understanding of the project details, a better understanding of potential impacts and gives us the chance to work together early to address concerns and design a project that can benefit us all."



Environmental Study Report (ESR)

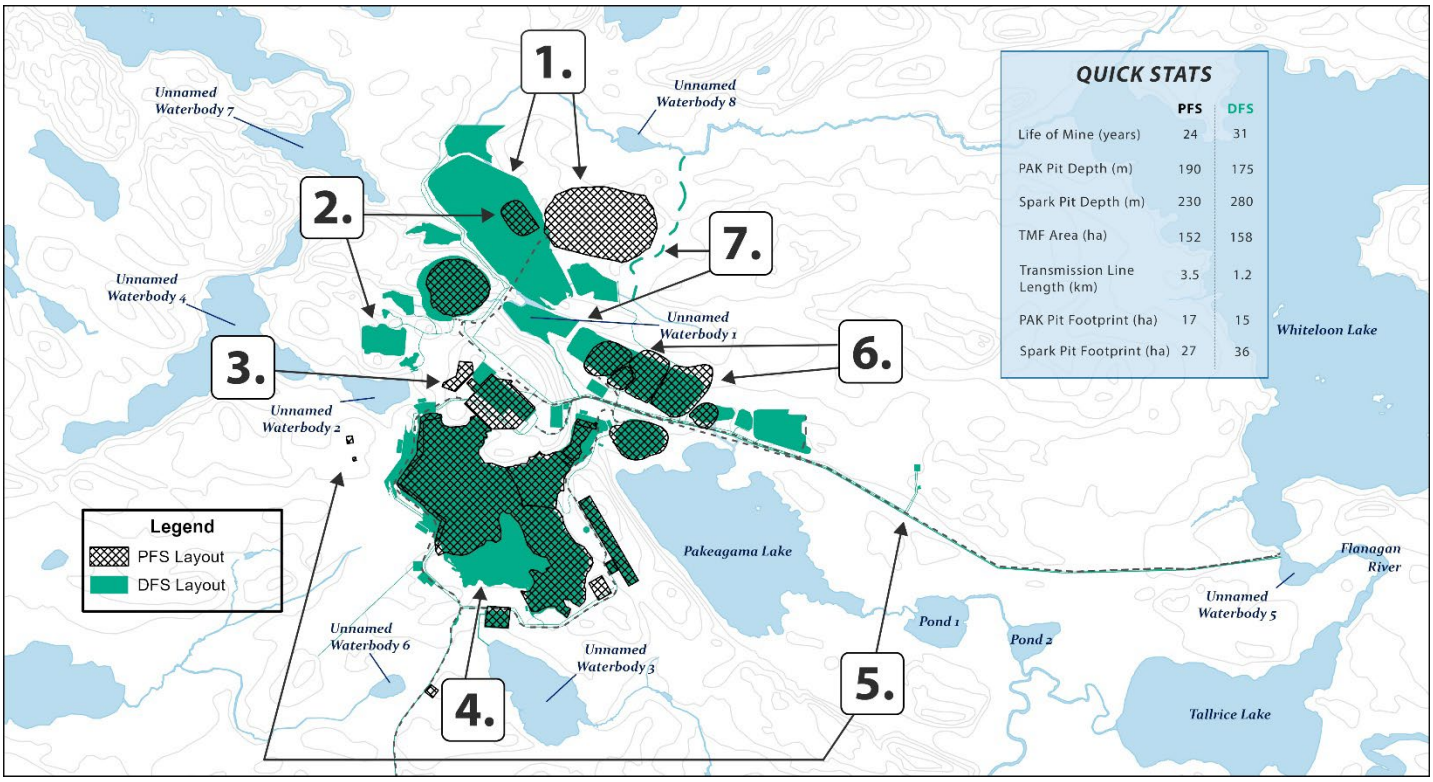
An ESR is a detailed document that looks at the potential environmental and social impacts of a proposed project, such as a new road, before any final decisions are made. Different options are considered and studied against potential impacts to determine which route might be preferred.

It is required by the Ontario government under the Environmental Assessment Act when a project could affect the environment, land use, or nearby communities. The ESR helps identify risks to water, wildlife, and cultural areas, and it explains how the company plans to reduce harm. It also shows what other options were considered and includes input from communities.

"The ESR is important because it gives First Nations and others a chance to review the plan, ask questions, and raise concerns before the project can move ahead," explained Lauziere.

This newsletter will focus on providing more details on the DFS and is requesting input into the ESR. For more information, do not hesitate to reach out to Clara at clauziere@frontierlithium.com

How the project has changed: Longer mine life, fewer impacts



The **2025 DFS** for the PAK Project provides a more detailed picture of how the mine will be developed and operated. This reflects several key changes designed to improve safety, reduce costs, and reduce the environmental footprint of the project.

One of the most important changes is the increase in mine life from 24 years to 31 years. This is based on new drilling data and engineering studies that increased confidence in the amount of lithium that can be economically mined.

The map above shows the changes from PFS to DFS, and the details of those changes are below. The numbers below reflect the map numbers.

1. Spark Mine Rock Area: The location and size of the Spark Mine Rock Area has changed. Instead of stacking the rock higher, the DFS proposes slopes that are not as steep; this means the pile takes up a larger area on the ground but will not be as high as previously planned. The new location also decreases hauling distances.

2. Spark Overburden Stockpile: The location of the stockpile has moved to southwest of Spark Pit.

3. Mill Complex: The size of the mill complex has decreased as we now propose to only have one line instead of two; these lines will produce chemical grade lithium concentrate rather than both chemical and technical grade.

4. TMF and Quarry: New studies revealed a suitable quarry within the tailings management facility (TMF), where the aggregate could be used for future expansion. It is also an area for potential future tailings storage.

5. Explosives Facility: This was located farther from the mine infrastructure as per regulatory guidelines for future licensing.

6. PAK Mine Rock & Drainage: Instead of creating multiple different piles for the PAK Mine Rock, geochemical studies revealed the material can all be stacked together, also at a gentler slope. In between the MRA and the PAK Overburden pile are 2 drainage ponds.

7. Spark Resource and Bolt: The Spark resource is currently still open and may extend east towards Unnamed Waterbody 1. The adjacent Bolt Deposit also intercepts the lake. A realignment channel is being engineered to ensure the waters remain flowing in the watershed.

Another key difference is the length of the power line; it has decreased significantly—from 3.5 km in the PFS to just 1.2 km in the DFS. This reduces potential impacts on the environment and simplifies permitting.

What we're planning: jobs, roads, and water

As the project moves into more detailed planning through the DFS, it is becoming more defined and more responsive to what we have heard from Indigenous communities. Concerns about road access, water protection, and employment opportunities have shaped the design of this project.

Jobs and Economic Benefits
More than 230 jobs will be created at the mine site and sustained for the life of the project. Many of these roles will require trades and technical skills, and Frontier is committed to working with Indigenous communities to support training and employment pathways. Other economic benefits include:

- Over $1 billion in federal and $699 million in provincial tax revenues expected over the life of the project
- Additional $645 million of Ontario Mining Tax estimated for the province

Roads and Site Infrastructure
We've updated our site plan to better support safe operations and reduce impacts. Approximately 6 km of two-lane haul roads connecting the PAK and Spark pits with processing and storage areas. Another 22 km of service roads will link key infrastructure across the site, including the concentrator, camp, airstrip, explosives facility, and the discharge point at the Flanagan River. These roads are designed to minimize disturbance while keeping heavy equipment off smaller service roads, which improves safety and reduces traffic.

Water Monitoring and Tailings
Concerns about water protection have influenced the DFS. A site water management system is proposed that includes channels that divert clean water, ditches and ponds to collect and manage water that has encountered mine minerals, pumps and spillways to handle overflow, and a dedicated water treatment facility to treat all excess water before releasing it safely into Flanagan River. The Tailings Management Facility is made up of three dams that will be raised in stages to hold all the tailings for the life of the mine. Water that drains off the tailings will flow into a Reclaim Pond; that water will be used throughout the mining process. All these measures will ensure that contaminants do not find their way into the water system.

Other infrastructure includes mine rock storage areas and soil stockpiles, a plant that crushes and processes the ore; buildings for offices, warehouses, construction, etc; fuel and explosives storage; emergency services; an airplane landing strip and helipad; and utilities such as power distribution, a plant control system, drinking water, and sewage treatment.

Next Steps
The company will now move ahead with environmental permitting, and planning for a Final Investment Decision (FID) within 24 months. This is when Frontier formally decides whether to invest $943 million in initial development capital to construct the mine.

Communities will have opportunities to review permits, raise concerns, and help shape monitoring plans.

KEY ECONOMIC FACTS

Net Revenue potential (before taxes after covering costs): $11 billion

Net Present Value (NPV): CA $932 million (after tax). This is an estimate of how much the project could be worth in today's dollars after all taxes and costs are paid. This is a strong NPV.

Internal Rate of Return (IRR): 17.9%. IRR is like a report card for how profitable a project is expected to be. A rate of 17.9% is considered good in the mining world.

Mineral Reserve Increase: 37% more lithium than previously estimated.

Annual Production: 200,000 tonnes of SC6 lithium concentrate. "SC6" stands for spodumene concentrate with 6% lithium oxide.

Operating Costs (C1): CA $602 per tonne. It costs about $602 to produce each tonne of lithium concentrate (SC6), not including long-term or closure costs.

All-In Sustaining Cost (AISC): CA $624 per tonne. This includes the C1 cost plus other ongoing costs like equipment replacement and environmental protection.

Environmental Study Report: Three road options

Option 3 has less environmental impacts identified to date

The ESR considers three options for the road that that will connect to the Branchwood Road within the Whitefeather Forest.

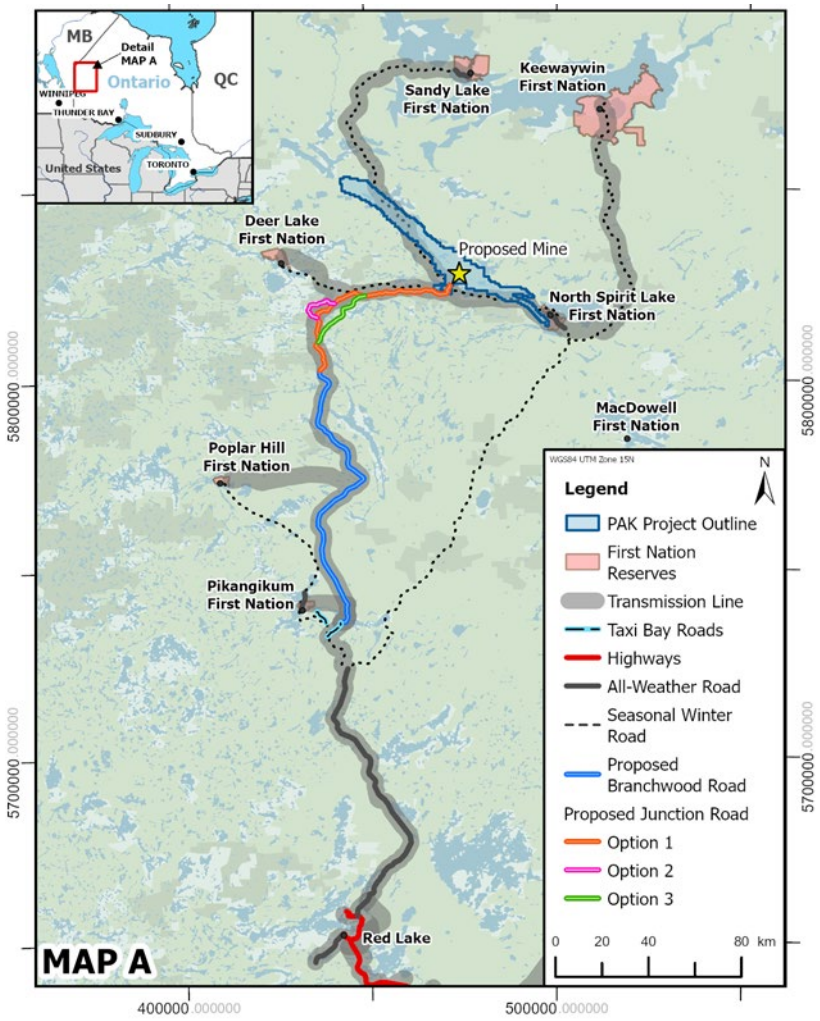
Option 3 stands out as the most balanced and efficient route for the proposed Junction Road. It is the shortest length, disturbs the least amount of land, and has fewer water crossings. Some benefits of this include, less travel time, lower fuel use, require the least amount of land clearing, and it reduces the risk of environmental disruption, making it easier and cheaper to build and maintain.

From a cost perspective, Option 3 is the most affordable to construct and to keep open in the long term. It would cost about $25.58 million to build and $329,000 per year to maintain, which is significantly less than the other routes.

These reasons led to the preliminary identification of Option 3 as the preferred route for the Junction Road.

The next step is to have this ESR reviewed by First Nations and the public. This will allow us to identify cultural and stakeholder related impacts of the options and bring these additional perspectives into the study.

We welcome input from the communities and an opportunity to address concerns.



At a glance: Road Options

OPTIONS	Length (km)	Land Cleared (ha)	Water Crossings	Construction Cost	Annual Maintenance Cost
Option 1	58.1	233	12	$34.16 million	$367,550
Option 2	63.0	252	14	$30.29 million	$402,500
Option 3	54.0	216	8	$25.58 million	$329,000
Null	0.0	0	0	$0	$0

CONTACT: Clara Lauziere - Director, Sustainability CLauziere@frontierlithium.com

Permitting the PAK Project

Getting permits for the PAK Project is one of the most complex steps in moving the mine forward.

Up to 40 federal and provincial authorizations will be required. Frontier is working hard at streamlining these permits so information can be coordinated and shared without having 40 separate processes. This includes three different Class Environmental Assessment processes. The table to the right outlines key permits to track.

Frontier with Community!

Key Permits Underway

Closure Plan (Ministry of Energy and Mines) – this is Frontier's plan to restore the PAK Lithium Project lands when mining is done.

Environmental Compliance Approval Industrial Sewage Works (ECA ISW) (Ministry of the Environment, Conservation and Parks) – this sets the limits on treated discharge coming out of our processes into the watershed.

Species At Risk Permit (MECP) – this analyzes the terrestrial habitat and impacts of the project on Species at Risk such as caribou and wolverine.

Fisheries Offsetting Plan (Dept of Fisheries and Oceans Canada) – calculates the amount of fish habitat to be lost by the project and sets out the plan to compensate for those losses by creating new habitat or restoring lost fisheries habitat within the region.

Schedule 2 Listing, Metal and Diamond Mining Effluent Regulation (MDMER) (Environment and Climate Change Canada) – this assesses projects from the perspective of depositing "deleterious" (harmful) substances in a waterbody i.e. mine tailings. This requires that all alternatives be analyzed before approval is given.