PROJECT SPOTLIGHT:
GRAVEL RUNWAY STABILIZATION (SECUR)

Stabilize the Surface, Protect Aircraft, Improve Safety: SECUR Transforms a Remote Northern Canadian Runway

1000+	Up to 1.3m3	100%
Flights per year	of surface aggregate preserved on each RJ100 and Boeing 737 takeoff	Eliminated routine summer grading on the runway

CHALLENGES
- Stabilize the runway surface to prevent aggregate and fines loss—minimizing FOD risk.
- Create a reliable, bound and hard runway surface that supports year-round frequent jet traffic.
- Deliver a solution that could be installed and endure the extremely harsh conditions of Northern Canada.
- The project required completion within a single weekend, imposing a strict operational window and requiring a seamless installation.

SOLUTION
- Applied and constructed EK35 into the top 4 of crushed aggregate to create a stable, bound SECUR runway.
- Applied an EK35 seal coat to improve surface durability, fines preservation, and moisture resistance.
- Midwest was onsite to assist, oversee, and ensure a successful installation.

RESULTS
- **Tightly Bound, High-Strength Runway:** Locked aggregate and fines in place to handle heavy aircraft loads without rutting or displacement.
- **Safer Operations:** Minimized FOD risk and delivered more consistent takeoff and landing conditions for pilots.
- **Preserved Critical Aggregate and Fines** – Preserved up to 1.3 cubic meters of aggregate per each RJ100and Boeing 737 takeoff
- **Quick and Seamless Installation:** Installed within the tight operational window—completed in a single weekend – resulting in no operational delays.
- **Reduced Maintenance & Extended Life of Runway:** Eliminated routine grading, significantly lowered runway maintenance activities and extended the life of the runway by years.
- **Reliable Year-Round Performance:** Maintained a consistent operating surface through Northern Canada's extreme conditions.

PROJECT BACKGROUND
Product: EK35®
Location: Northwest Territories, Canada
Industry: Mining Company

A remote Canadian mine required a durable, environmentally responsible solution to stabilize its gravel runway and maintain safe, year-round operations for Boeing 737 and RJ100 aircraft. The runway supports over 1,000 flights annually, including both passenger and freight operations, making it a critical operational lifeline.
Existing conditions included significant loss of fines and loose aggregate, Foreign Object Debris (FOD) risks and increasing maintenance costs. After several years of successful topical treatment with EK35®, the mine selected Midwest's SECUR System to fully stabilize the newly placed aggregate and deliver long-term runway performance.

LOOKING FORWARD
This project validated an innovative runway-stabilization approach that improved performance and durability, delivering a stronger, reliable year-round surface. It offers runway operators a high-performing alternative for remote, cold region runways where the climate is not suitable for traditional asphalt pavements. The success of this project laid the foundation for Midwest's Scientifically Engineered and Constructed Unpaved Runway (SECUR) stabilization system using EK35®.

CUSTOMER TESTIMONIAL
"Midwest demonstrated a true partnership for potential performance improvement and maintenance cost reduction"
-Airport Manager