

HIGH PRODUCTION IN A CHALLENGING ENVIRONMENT

Proven across programs, terrains, and deposit types.

There are factors that can delay a survey that are consistent from project-to-project, such as subpar weather or technical issues. There are delays in a project that can be considered force-majeure, which include issues like forest fires or geomagnetic activity. Rosor Exploration's field team experienced all of those while surveying for New Found Gold's Gull River Project in Newfoundland, Canada.

Despite setbacks, Rosor's field team broke records for

daily acquisition, regularly exceeding 250 line-kilometers a day flying in non-optimal conditions.

Gull River's high production rate along with consistent high-quality data sets the benchmark for Rosor. With the Recon Lite, Rosor can produce 300-500 line-kilometers per day to deliver high-quality magnetic data that can assist in future exploration targets.

Project

Gull River Project

Methods

Drone-borne Magnetics

Location

Grand Falls-Windsor, Newfoundland

Anomaly Type

Subsurface gold deposits

BACKGROUND

Located 50 km south of Grand Falls-Windsor, Newfoundland is the Gull River Project, the southern extension to the Queensway Project and 100% owned by New Found Gold (NFG). Rosor was contracted to fly 3,850 line-kilometers over the Gull River Project to merge with the Queensway Project to create one supergrid over the area (Figure 1). The block and survey was designed around a previous drone-borne magnetic survey flown by Rosor in early 2024 to create a supergrid over NFG's project areas. Rosor was tasked with collecting and processing data, to merge the data with the Queensway survey, and to delineate the magnetic bodies hosting the Gull River Project.

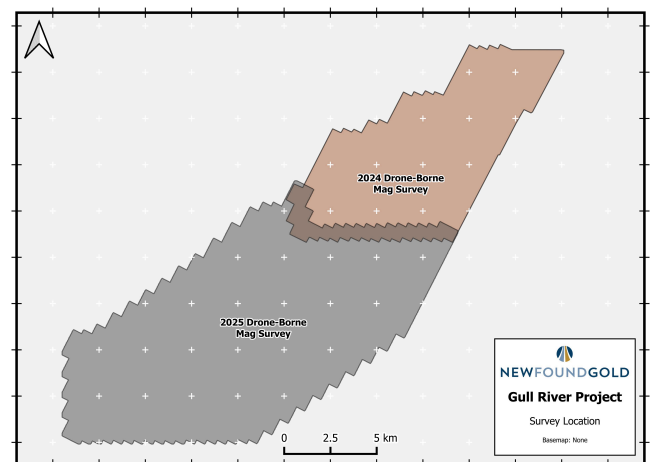


Figure 1: Coverage of the Gull River Project with the 2024 Queensway Survey.

Gull River has an approximate area of 157 km². The survey plan (Figure 2) comprised of 425 planned traverse lines oriented NNW-SSE (N300°/N120° azimuth) and 33 tie lines planned perpendicular (N030°/N210° azimuth), with sufficient overlap with the Queensway survey to ensure seamless merging of final products. The field team deployed with their test-and-proven Recon Lite, a gas-powered lightweight drone designed in-house to handle adverse conditions while having long range and large payload for a drone.

Data acquisition occurred in two phases: from July 15 to August 8, 2025 and from August 25 to September 8, 2025. The first phase of acquisition was marred by bad weather before the crew had to be evacuated from the area due to nearby forest fires. The second phase of acquisition proved to be the most productive stretch of acquisition for any project Rosor has done. With thunderstorms and geomagnetic storms causing delays, Rosor's field crew achieved an average of 315 line-km a day, with three days with over 350 line-km of data, with one day exceeding 400 line-km of clean magnetic data.

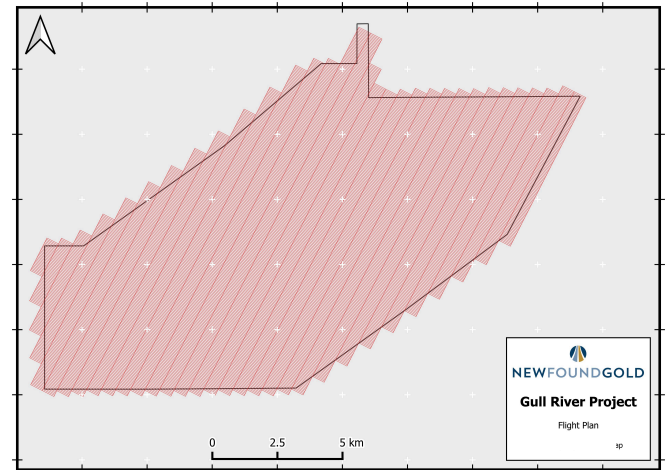


Figure 2: Flight plan for the Gull River Project.

The data was processed using Rosor's refined in-house processing workflow to process the survey in near-record time (per line-km) to get a completed dataset to assist in their exploration.

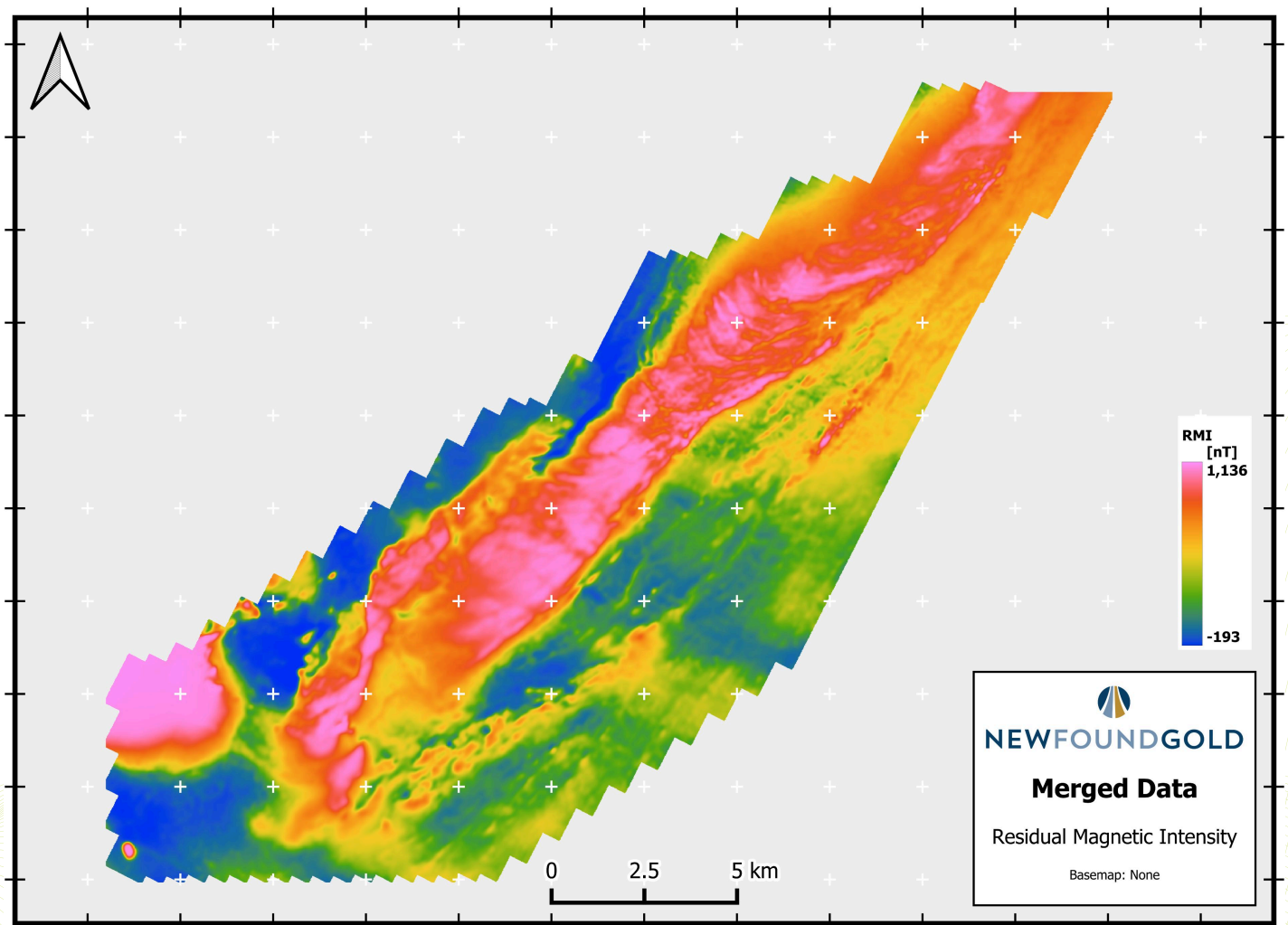


Figure 3: Merged residual magnetic intensity grid for the Gull River and Queensway Projects.

The residual magnetic intensity grids from both surveys were merged together using Oasis Montaj's gridknit extension (Figure 3).

The resulting grid was a cohesive supergrid that directly correlated with geology provided by NFG while also providing new insights into potential targets for follow-up.



Figure 4: The Recon Lite hybrid. The multi-robot solution used in the Gull River survey.

CONCLUSIONS

In total, Rosor's field crew acquired almost 4,000 line-kilometers of line data despite setbacks from forest fires and geomagnetic storms. At full production days, there were multiple days where production approached 400 line-km, a rarity in drone-borne geophysical surveying. This is largely due to the deployment of the Recon Lite, a gas-powered drone developed in-house that has significant range while having a larger-than-average payload (Figure 4). With the Recon Lite, the field crew was able to acquire more lines per flight as the Recon Lite can be in the air for hours at a time.

Gull River proved the effectiveness of the gas-powered Recon Lite, and scratches the surface of what Rosor can achieve in terms of high-quality acquisition and production of geophysical data.

The drone magnetic survey provided high-resolution structural insights that significantly improved our understanding of the subsurface geology, allowing us to refine our exploration targets.

- David Drover, Project Geologist

