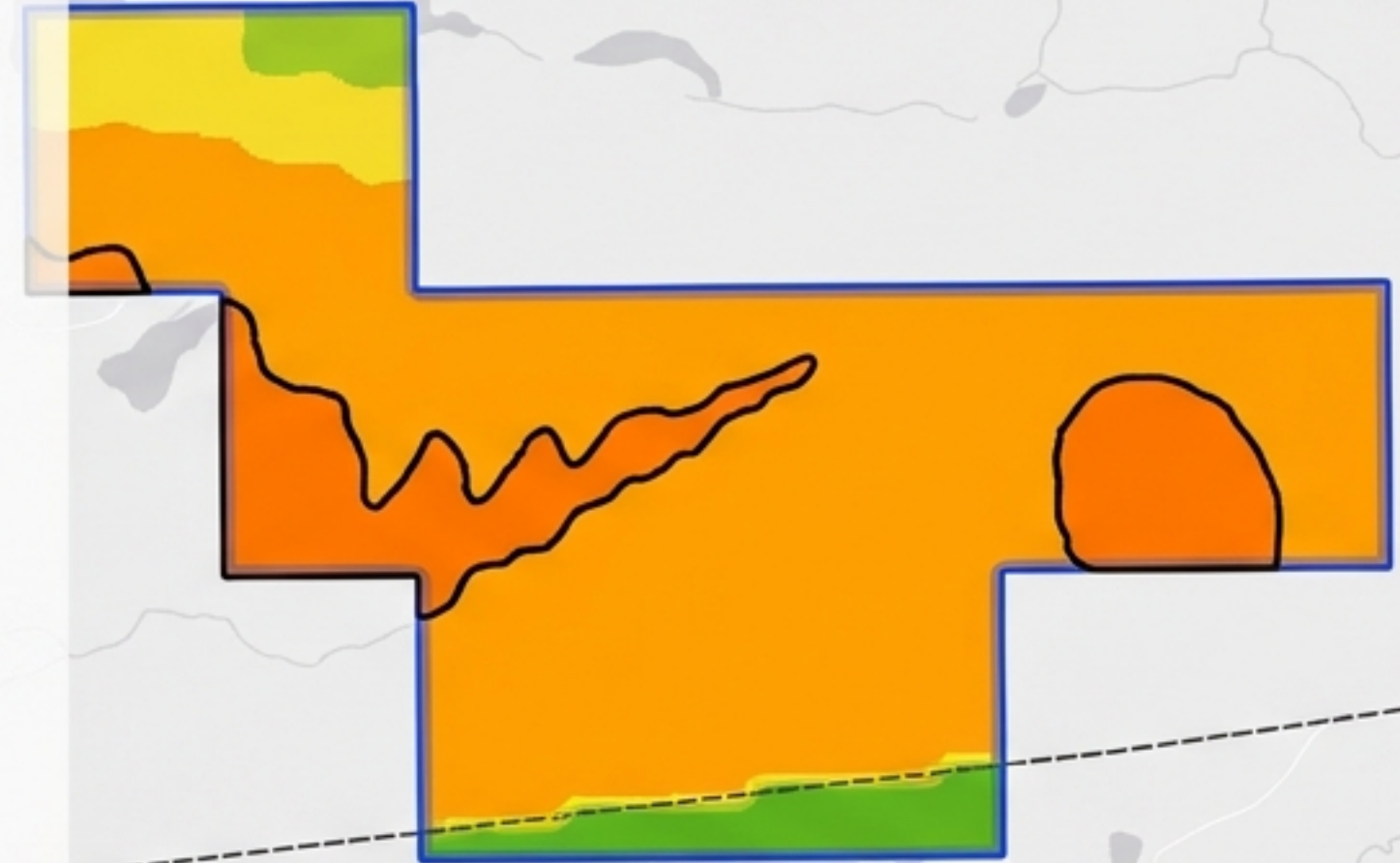


NQC Graphite Project: 2026 Technical Evaluation & Prospectivity Analysis

Unlocking High-Grade Graphite
Potential in the Matawinie District
through AI-Driven Modeling



Report Date:	November 30, 2025	
Prepared for:	Glenn Griesbach and Junita Tedy Asihito	
Prepared by:	Mercator Geological Services	mercator GEOLOGICAL SERVICES

Data-Driven De-Risking of a Critical Mineral Asset

Strategic Location

Located 55km NW of Saint-Michel-des-Saints in the Grenville Province, directly adjacent to the geological context of the world-class Matawinie Graphite Mine.

The Methodology

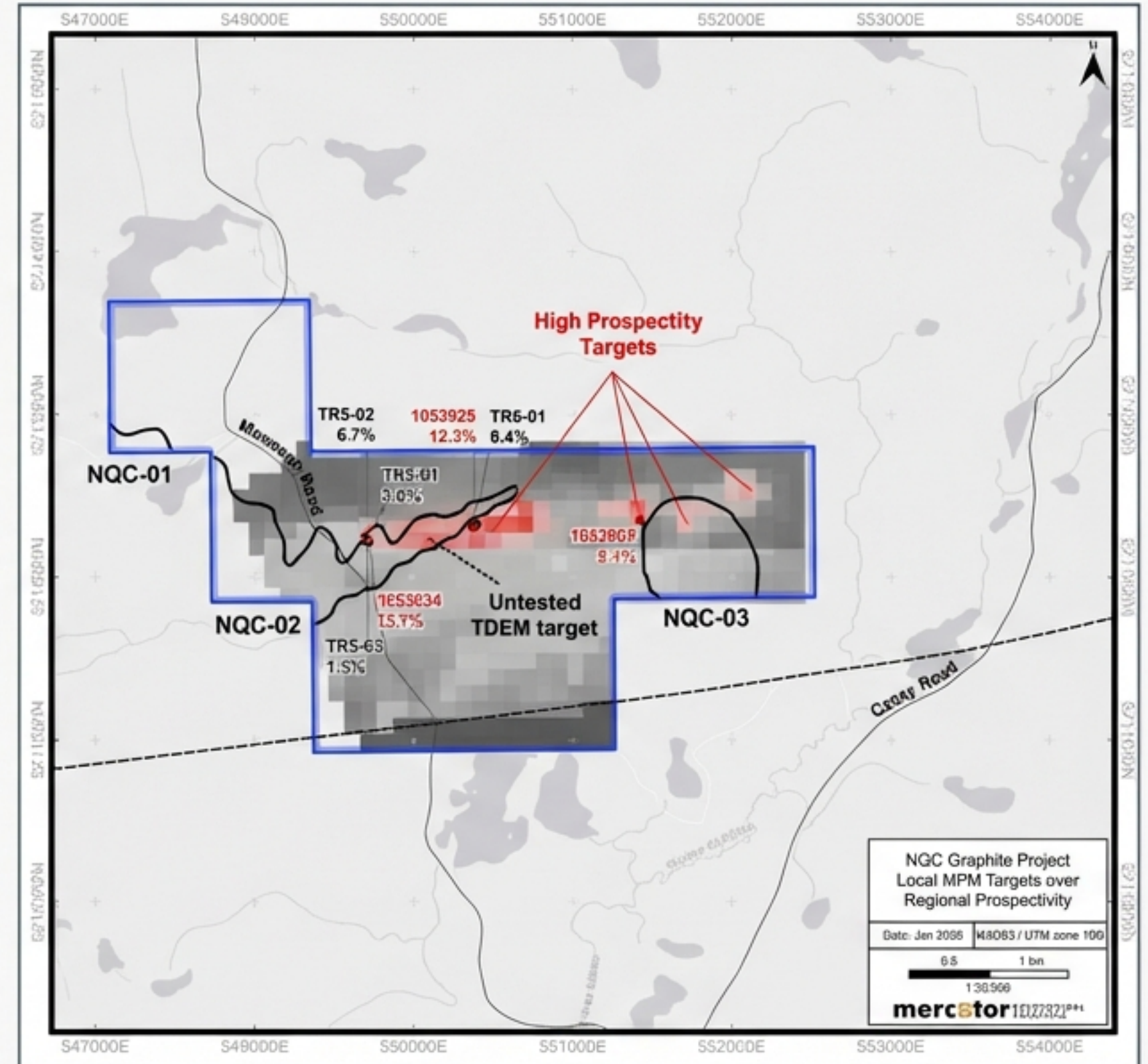
A proprietary AI and Knowledge-Driven workflow synthesized historical government data, lithology, and geophysics to generate unbiased exploration targets.

The Discovery

Identification of a continuous 5km mineralized trend along a structural fold limb, previously under-explored.

The Grade

High-confidence prospectivity score of 0.68 is anchored by historical surface samples returning up to 13.7% Graphitic Carbon (Cg).

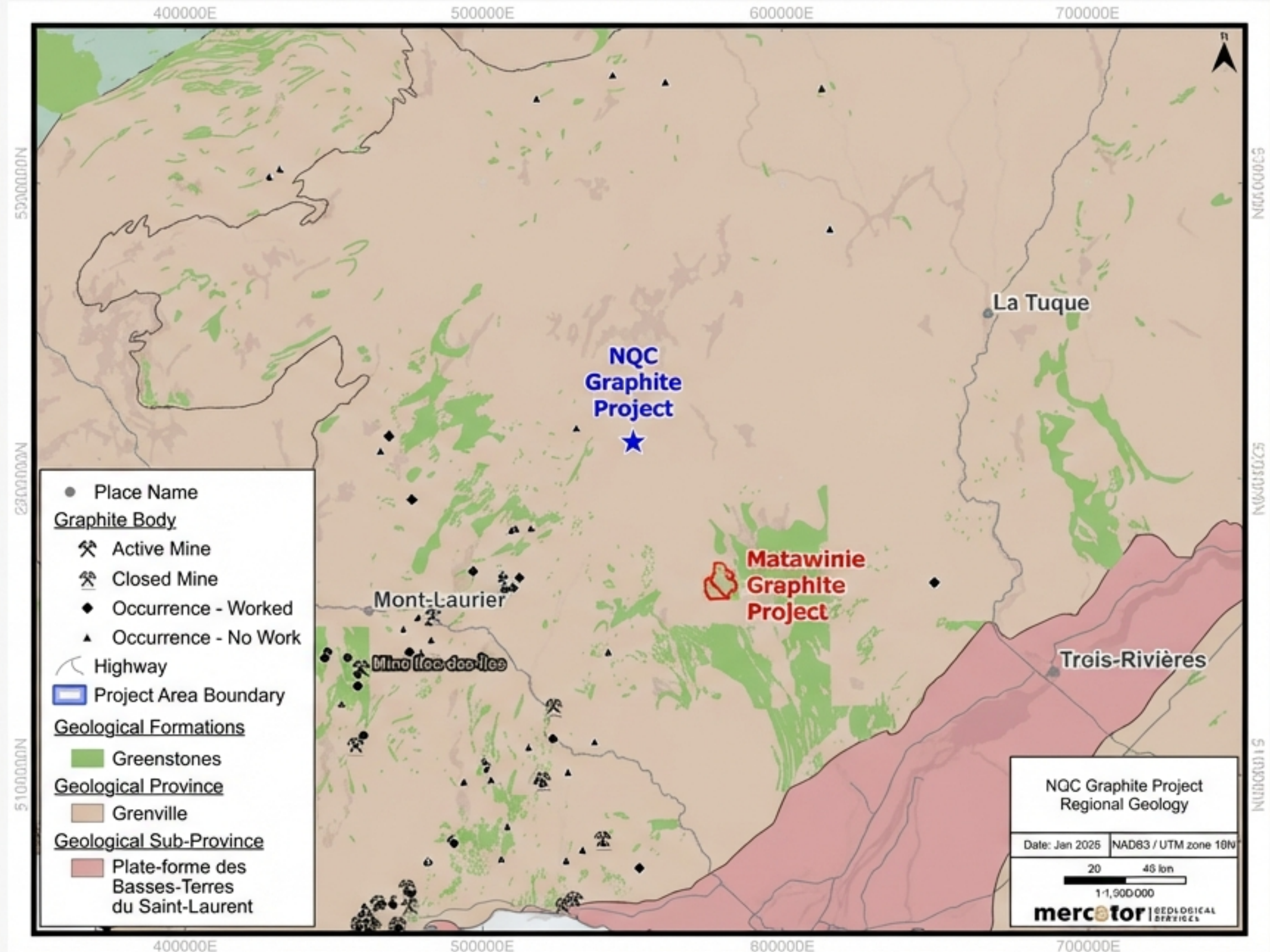


Located in the Heart of the Matawinie Graphite District

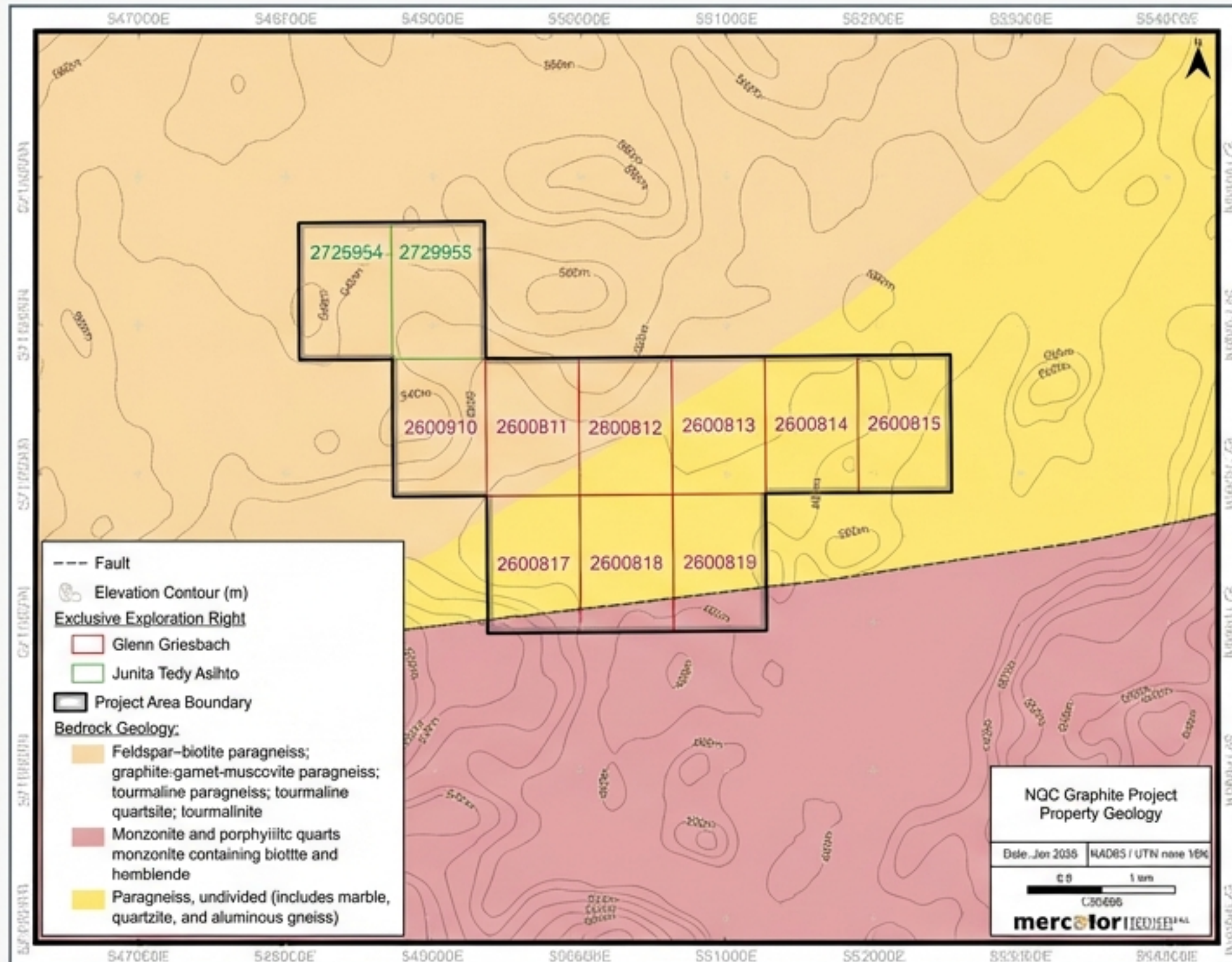
SPECIFICATION	VALUE
Tenure	11 Mineral Claims
Area	423 Hectares
Region	Laurentian Highlands / Grenville Province
Proximity	~55km from Saint-Michel-des-Saints

Infrastructure & Access

Accessible via Chemin Manouan (paved first 8km) and a network of forestry roads providing potential year-round access for exploration and drilling.



The Morin Terrane: A Proven Host for Crystalline Flake Graphite



Geological Context

The property lies within the Morin Terrane of the Grenville Province, a high-grade metamorphic belt (Upper Amphibolite to Granulite facies) renowned for graphite endowment.

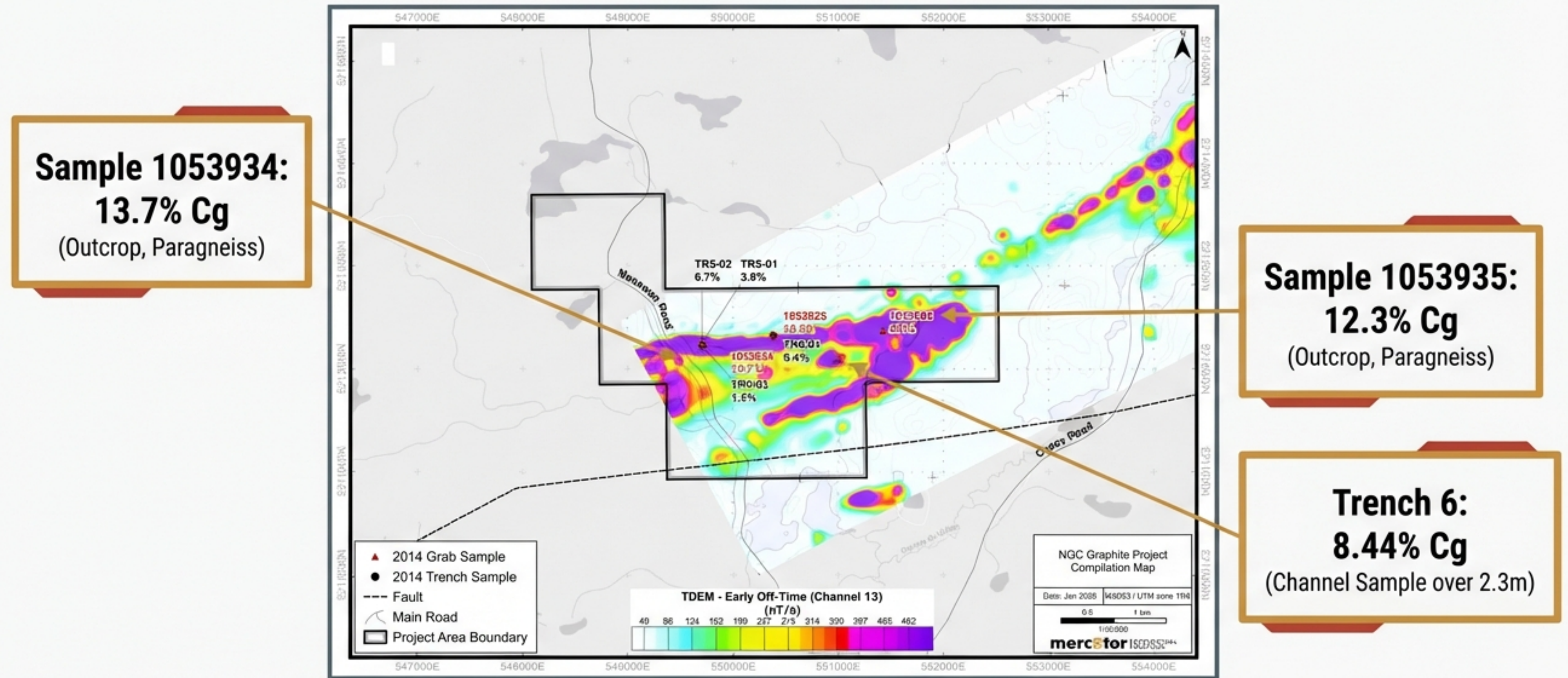
Lithology

The area is dominated by deformed paragneiss and calc-silicate rocks—the specific metamorphic host rocks required for economic crystalline flake graphite deposits.

Regional Fertility

The geology is dominated by deformed paragneiss and calc-silicate rocks known to host crystalline flake graphite mineralization, similar to the adjacent Matawinie Graphite Mine.

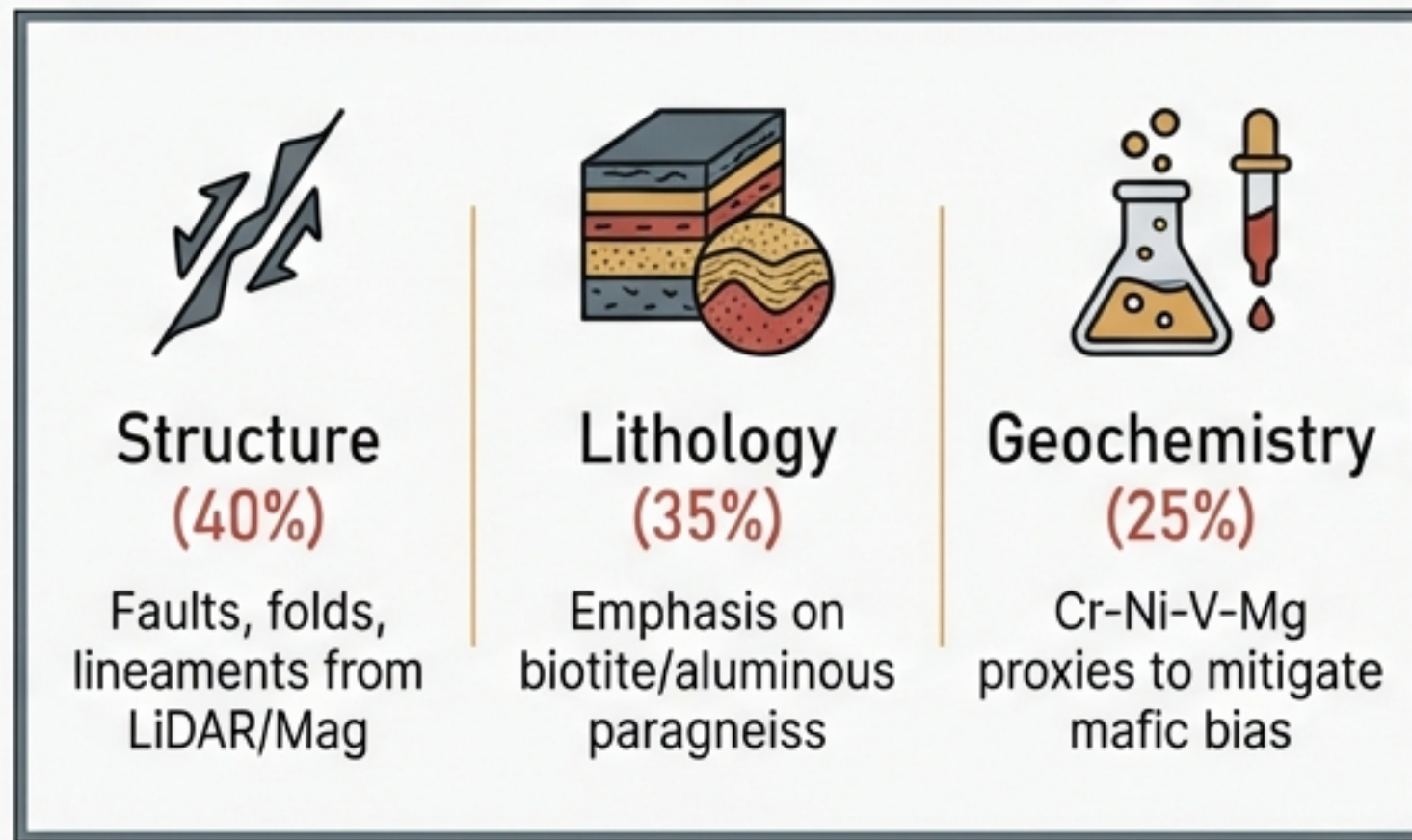
Historical Exploration Identified High-Grade Surface Mineralization



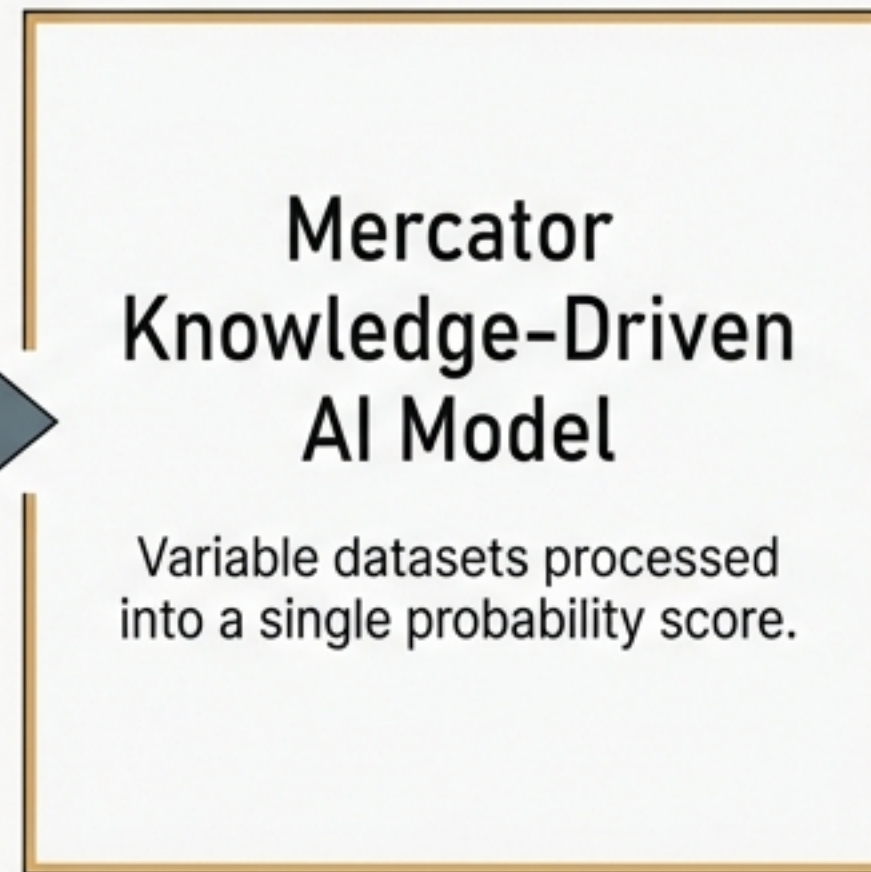
Historical context: Claims overlap 'Block I' of Nouveau Monde's historical exploration. Previous operators identified anomalies but prioritized Block H (Matawinie Mine), leaving these high-grade zones under-explored.

Turning Data into Discovery: The Prospectivity Modeling Workflow

The Inputs (Weighted Evidence Layers)



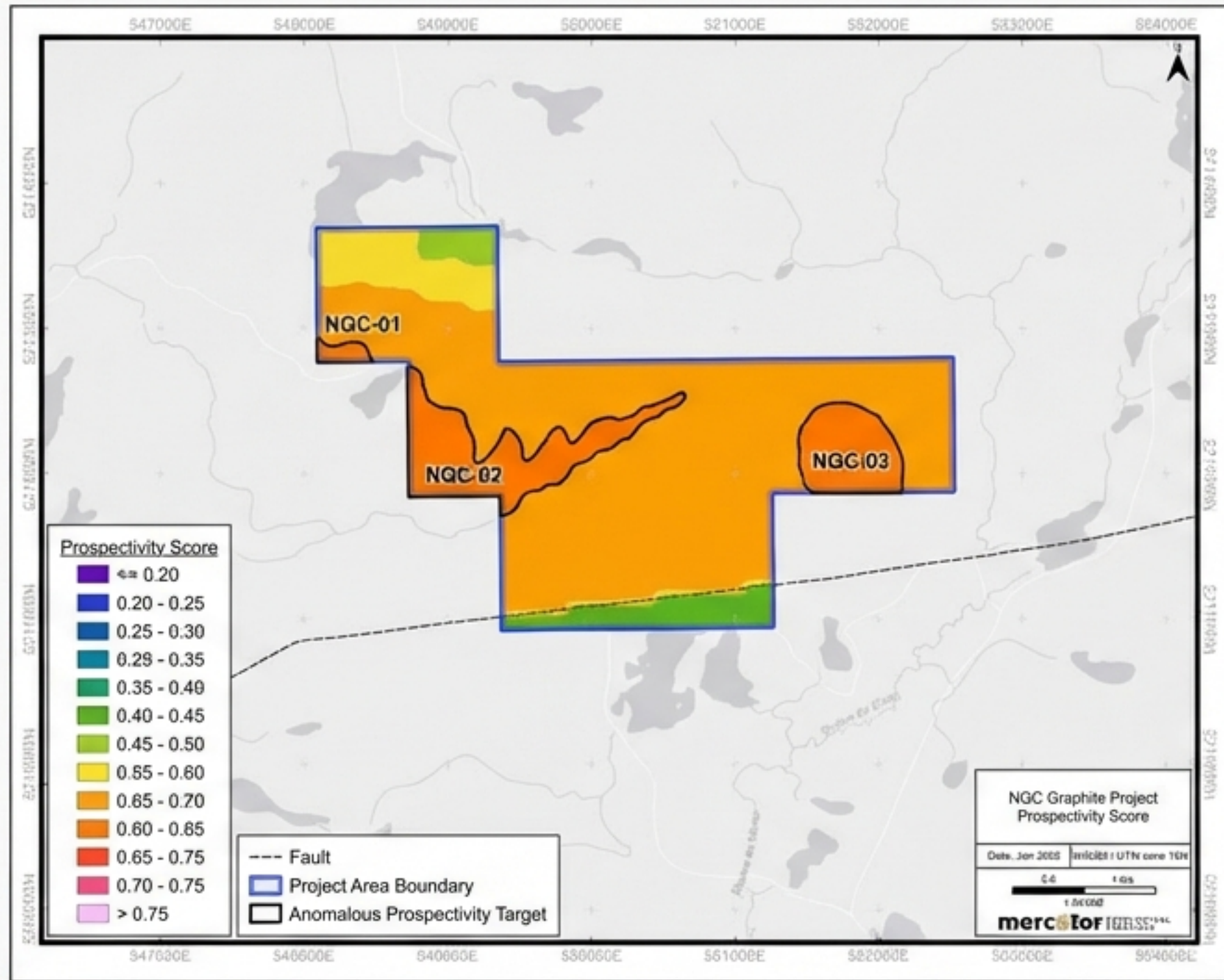
The Process



The Output



Regional Analysis Identifies Three Priority Target Zones



NQC-01 (Score 0.60)

Driven by high lithological correlation.

NQC-02 (Score 0.61)

Defined by strong structural lineaments along the fold limb.

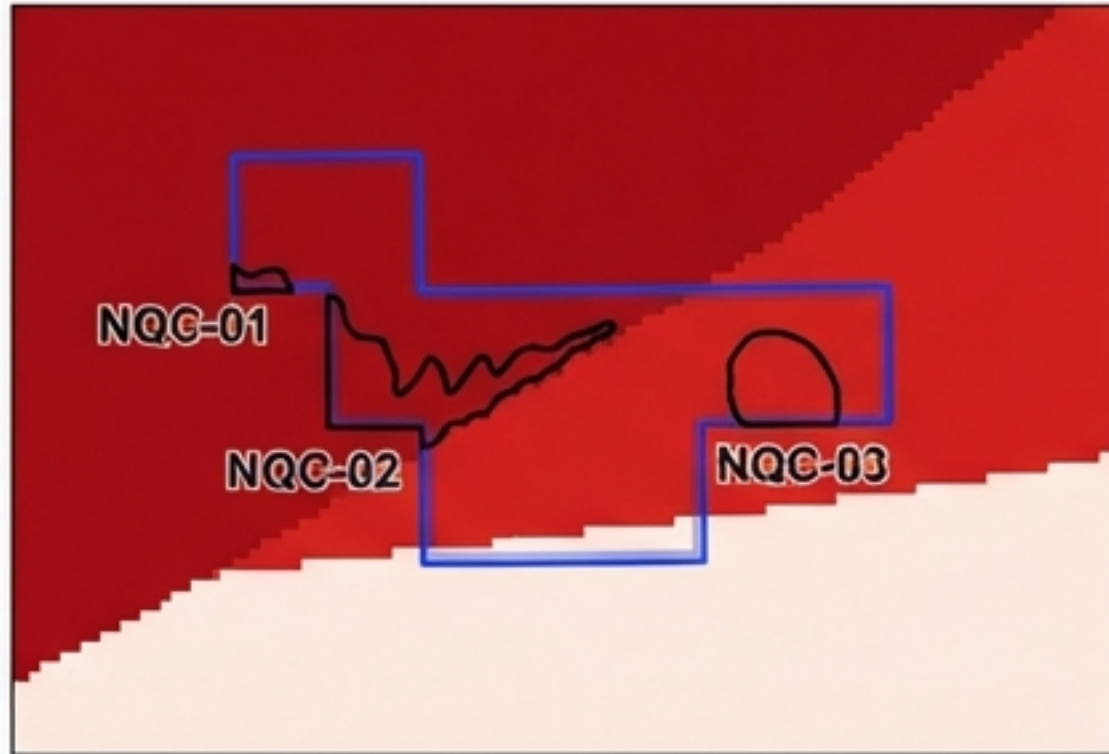
NQC-03 (Score 0.60)

Located at the fold nose, showing strong geochemical support.

The model highlights specific areas where structure and favorable rock types intersect, removing random noise.

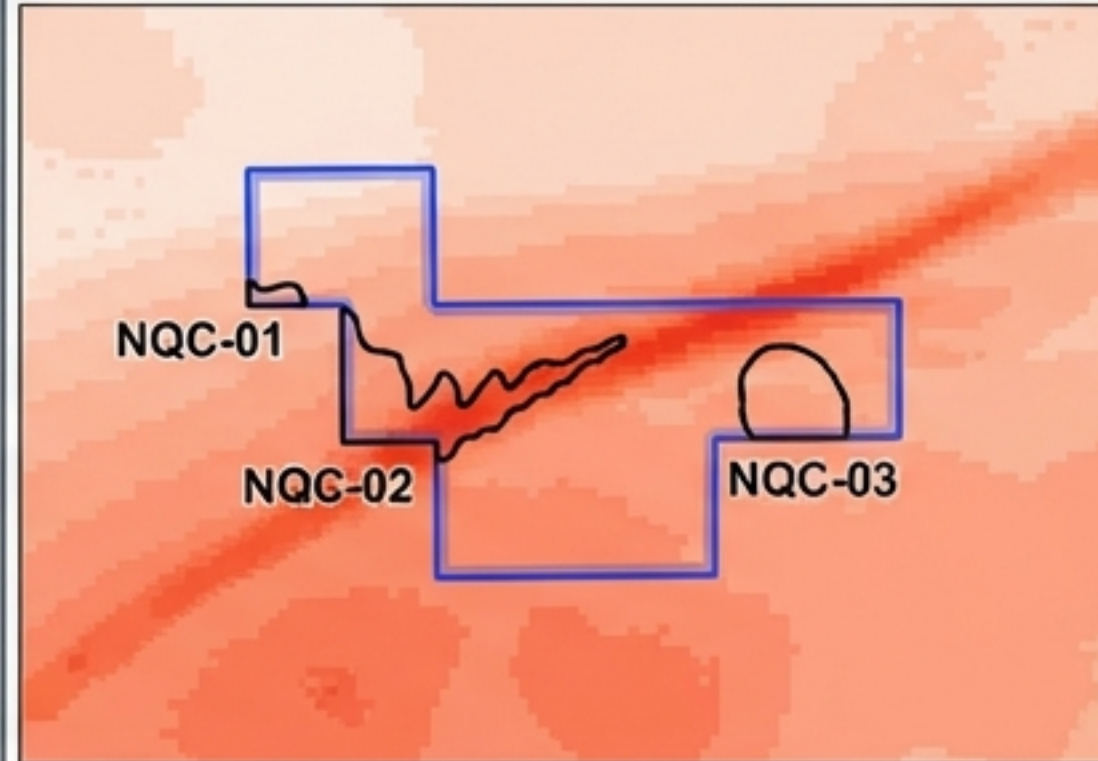
Deconstructing the Targets: Structure and Lithology Drivers

Lithology



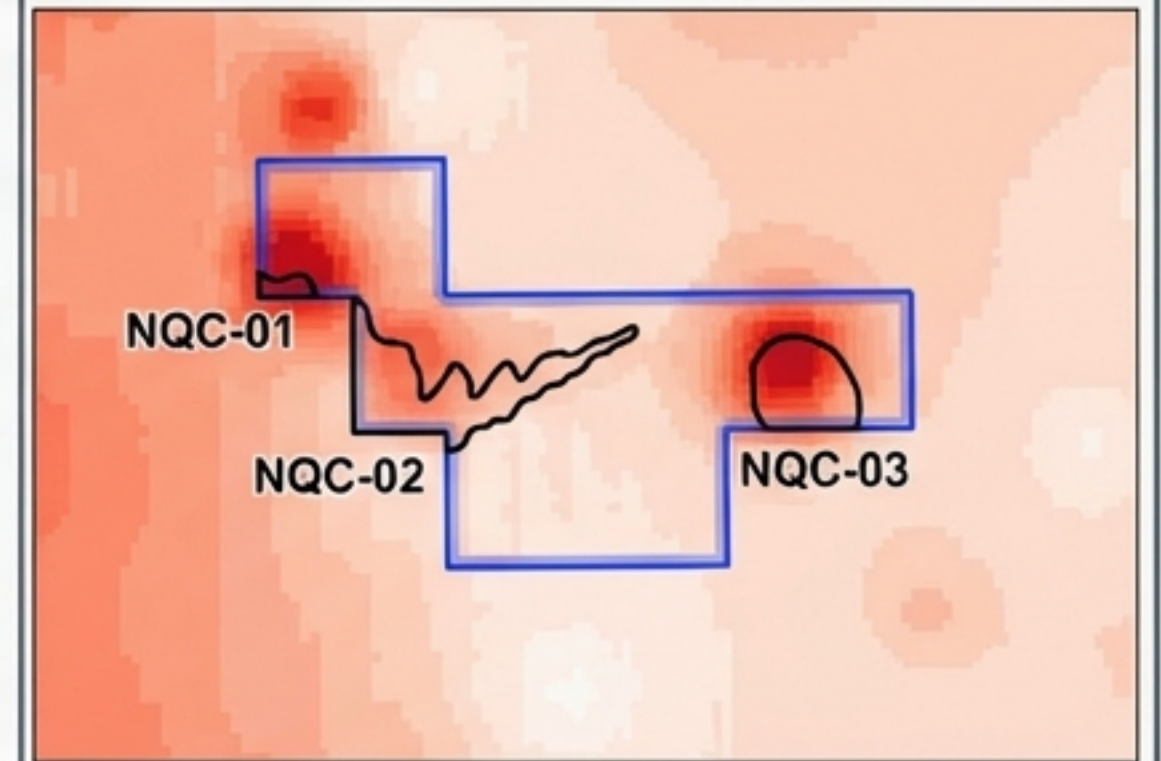
Shows pervasive favorable host rock (Deep Red) across the claim block.

Lineament



Highlights the structural corridor connecting NQC-02 and NQC-03.

Geochemistry



Shows localized hotspots reinforcing the structural targets.

Analysis confirms that NQC-02 and NQC-03 are not isolated anomalies but connected components of a larger structural system driven by the regional fold architecture.

Increasing Resolution: Local Mineral Prospectivity Mapping (MPM)

The Process:

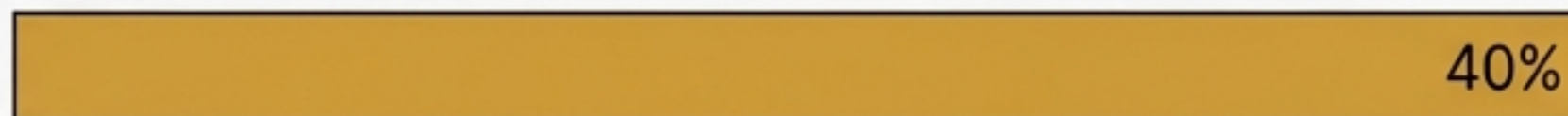
Integration of the Regional model with specific 2012 Airborne TDEM conductivity footprints and 2014 Rock Assays.

Strategy:

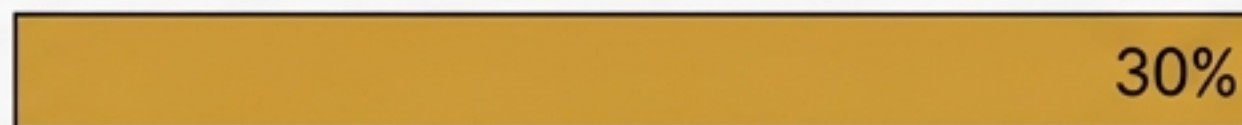
'Footprint-specific modeling' avoids extrapolating data into areas without coverage, resulting in drill-ready precision.

Local Model Weighting

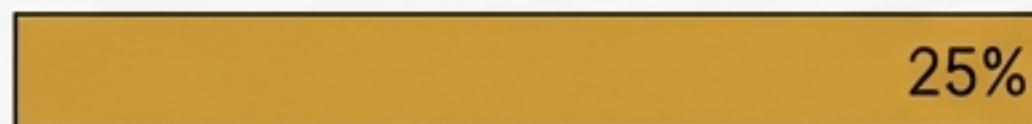
TDEM Conductor Evidence: 40% (Primary Driver)



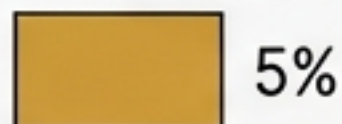
Rock Carbon/Sulfur Evidence: 30% (Validation)



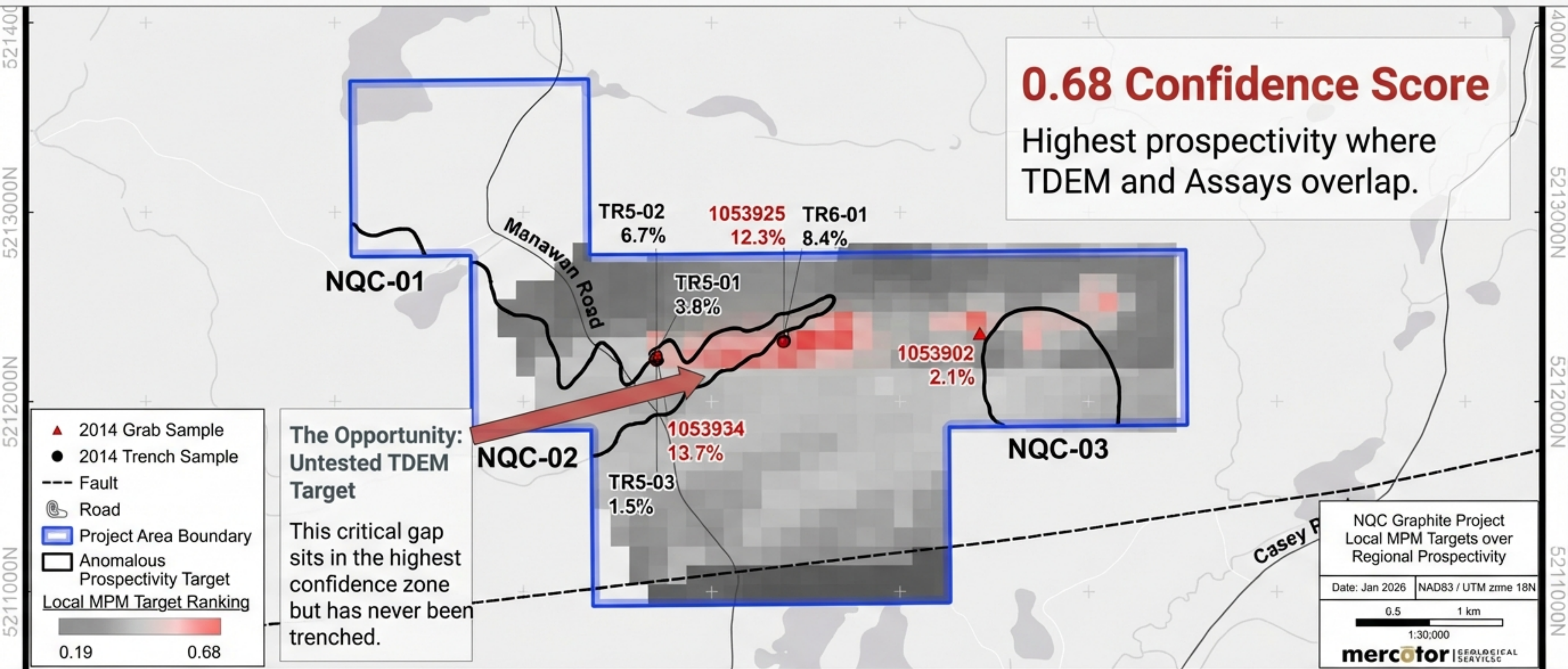
Structure/Lithology: 25% (Geological Framework)



Magnetic Context: 5% (Support)



The Discovery: A 5km High-Confidence Trend



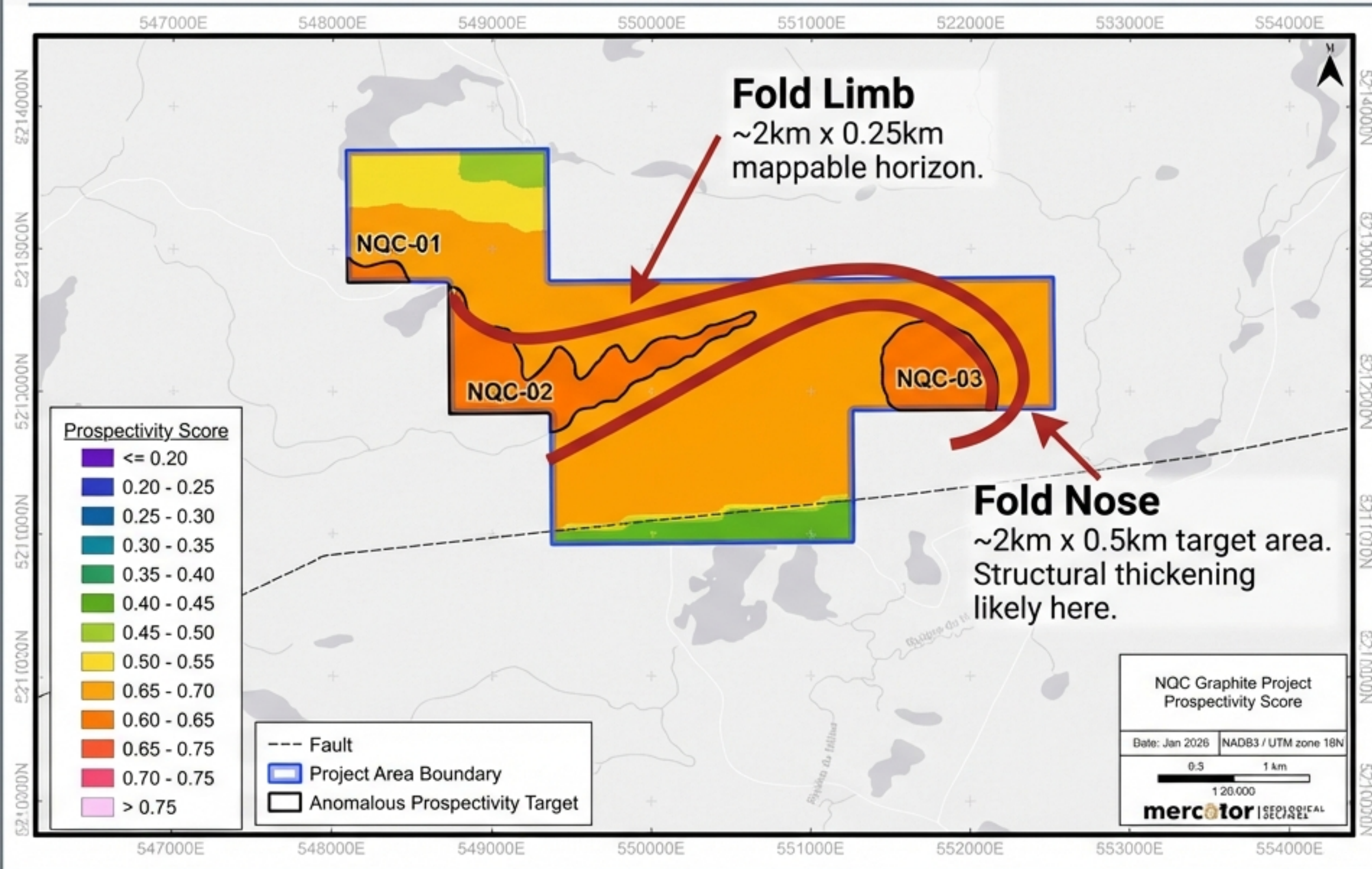
The data reveals a continuous 5km trend along the northern limb of the fold structure.

Validation: Conductivity is Driven by Graphite, Not Sulfides

Sample	Total Carbon	Total Sulfur	Ratio
Sample 1053934	15.95%	1.65%	High Purity
Sample 1053935	14.55%	0.13%	Very High Purity

“Strong spatial correlation between TDEM conductivity anomalies and known graphite occurrences confirms graphite is the source of the electromagnetic anomalies.”

Structural Architecture: The Fold Model



Geological Significance

The targets define a mappable horizon. Wider coalescing bands in fold crests can provide the sufficient volume needed for an economic deposit.

Conclusion: A De-Risked Exploration Opportunity

Proven District

Upper amphibolite paragneiss in the Grenville Province (Matawinie District).

Proven Grade

Historical surface sampling confirms high-grade mineralization up to 13.7% Cg.

Proven Continuity

A 5km continuous conductive trend defined by AI modeling and structural analysis.

Exploration Upside

The highest scoring area (between TR5 and TR6) remains untested by trenching.

Verdict: The project warrants an immediate, intrusive field program to test continuity and depth.

Recommendations & Next Steps

Phase 1: In-Fill Trenching

Focus on the “Untested Anomaly” gap between TR5 and TR6 along the northern fold flank.

Phase 2: Structural Mapping

Define the fold architecture during trenching to understand understand thickening at the fold nose.

Phase 3: Shallow Drilling

Test depth continuity of the 0.68 confidence zone and validate high-grade surface grab samples at depth.

Statement of Qualifications



Ryan D. Kressall

Ryan D. Kressall, M.Sc., P. Geo.,

Dated: November 30, 2025

- **Primary Author:** Ryan D. Kressall, P. Geo.
- **Role:** Director of Geoscience and Senior Geoscientist, Mercator Geological Services.
- **Expertise:** Extensive professional experience in geology, geochemistry, and critical metal exploration.