



ASX Announcement – 13th January 2021
Rafaella Resources Limited (ASX:RFR)

**Rafaella Commissions Geotech for a VTEM Max and Groundfloor EM Survey
over the Midrim-LaForce Ni-Cu-PGE Project Areas**

Investment Highlights

- Rafaella Resources has engaged Geotech Limited to conduct a helicopter-borne geophysical survey over the recently acquired Midrim and Laforce Ni-Cu-PGE claim areas in Quebec, Canada.
- Survey will utilise latest technology to target deeper anomalies using the VTEM™ Max system combined with Groundfloor EM (GFEM) to enhance the ability to detect/characterise highly conductive targets.
- The proposed survey is 766 line-kms over the two survey blocks.
- The objective of the survey will be to target the feeder systems to the near surface high-grade Ni-Cu-PGE occurrences already identified.
- The survey is expected to commence in early February and take two weeks to complete.

Rafaella Resources Limited (ASX:RFR) (“Rafaella” or “the Company”) is pleased to announce that it has contracted Geotech Limited (“**Geotech**”) to conduct a helicopter-borne survey over the recently acquired Midrim and Laforce claims in the Belleterre-Angliers Greenstone Belt in Quebec, Canada. The survey is expected to commence in early February and, subject to weather conditions, should take two weeks to complete.

Geotech VTEM™ Max combined with Groundfloor EM

Geotech is a world-leader in the geoscience industry and in technological advancement of geophysical surveys. The Versatile Time-Domain Electromagnetic (VTEM™ Max) combined with Groundfloor EM is excellent for locating discrete conductive anomalies as well as mapping lateral and vertical variations in resistivity. The VTEM™ Max provides the industry’s highest signal/noise ratio and spatial resolution of conductors, offering excellent depth of penetration and the high resolution. Full waveform recording is employed to achieve clean early-time measurements to effectively resolve near surface structures. It has a high-sensitivity cesium magnetometer for mapping geologic structure and lithology and a cesium magnetometer base station for diurnal correction. The Radar altimeter has an accuracy of approximately 1 meter and a real time (WAAS) GPS Navigation System provides an in-flight accuracy up to 1.5 metres.

Data processing and mapping will be undertaken by experienced geophysicists, using the latest computer technology and state-of-the-art software.

Furthermore, Geotech will work with Platform Geoscience to allow an integrated approach to airborne and ground methodology that will enhance its ability to rank conductors by utilizing low noise ground sensors strategically positioned during the airborne survey to allow for the collection of very low frequency EM data - Groundfloor EM method.

Groundfloor Electromagnetics (GFEM) is a methodology that utilizes an airborne EM transmitter with a set of surface-based receivers. The larger transmitter-receiver separation in Groundfloor EM over standard airborne techniques yields the ability to compute the step-response with sufficient accuracy to study extremely high conductivity targets that are commonly encountered in nickel-copper sulphide exploration.

Midrim and Laforce

The Belleterre-Angliers Greenstone Belt in Quebec, Canada is host to numerous deposits of Ni-Cu-PGE metals. (Figure 1).

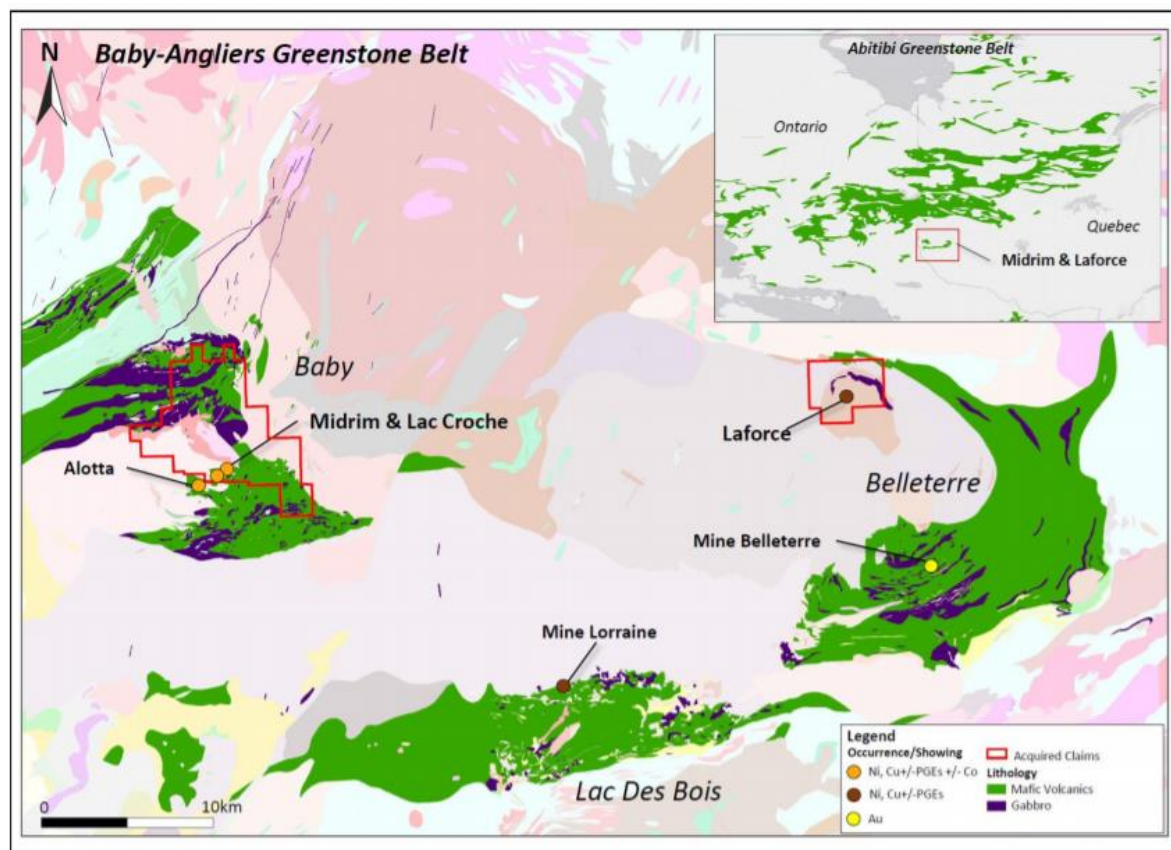


Figure 1. Regional geological setting of the Midrim and Laforce Ni-Cu-PGE deposits in the Belleterre-Angliers Greenstone Belt.

As previously disclosed¹, the Projects benefit from exceptionally high-grade drilling assay results, including the following intersections at the Midrim Deposit:

- 4.3m @ 6.57% Ni, 5.15% Cu & 7.15g/t PGEs from 57.15m depth in hole MR00-05;
- 4.6m @ 5.97% Ni, 4.91% Cu & 3.38g/t PGEs from 48.00m depth in hole MR00-37; and
- 9.4m @ 3.52% Ni, 4.25% Cu & 4.59g/t PGEs from 56.00m depth in hole MR17-01.

Between 1968-1972, the Lorraine Mine produced 594,000 tonnes at 1.07% Cu and 0.45% Ni.

Both the Midrim and Laforce properties are centrally located to infrastructure and easily accessed by the VTEM™ Max survey equipment (Figure 2).

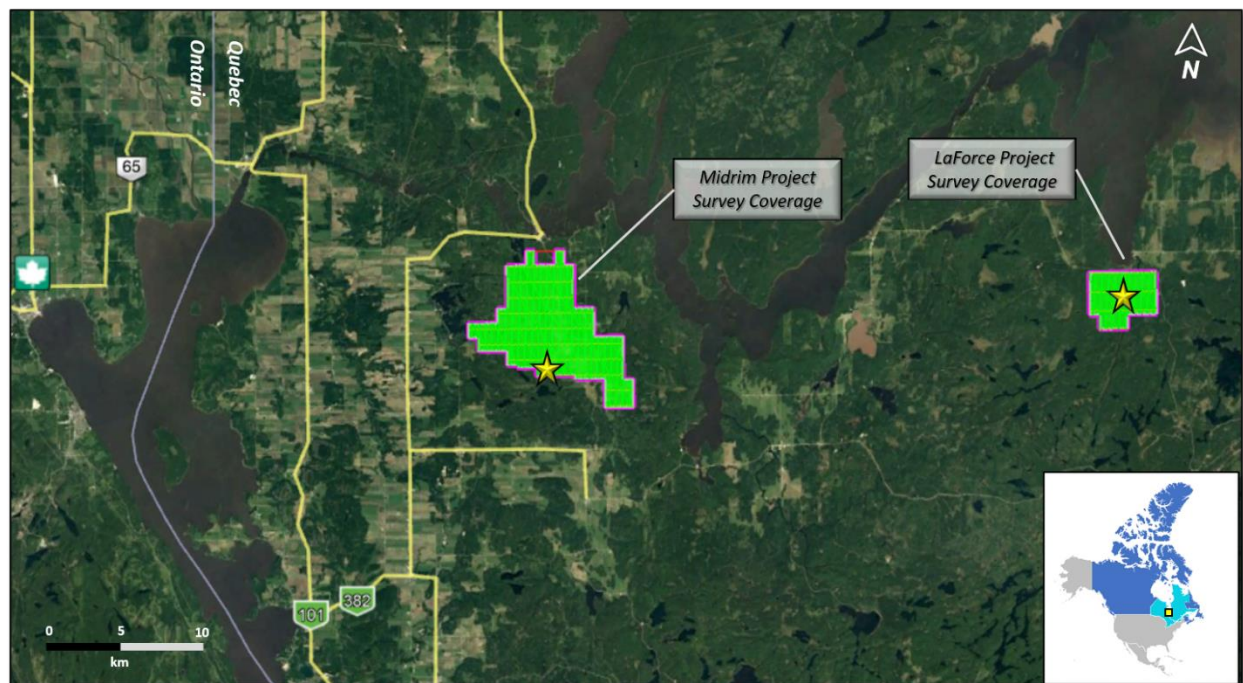


Figure 2. Regional locations and nearby infrastructure for the VTEM™ Max survey.

Gabbroic intrusive bodies are host to the Midrim and Laforce Ni-Cu-PGE mineralisation and both properties have adjacent, strong magnetic sequences (Figures 3 and 4). Flight survey coverage of the gabbroic bodies by the VTEM™ Max survey will penetrate these bodies and should detect conductors to depths of up to 500m.

The primary objective of the VTEM™ Max survey at both project areas will be to detect/delineate potentially blind/deep level bedrock conductors associated with Ni-Cu-PGE mineralisation.

¹ See ASX announcement dated 21 August 2020 "Agreement to Acquire High-Grade Nickel-Copper Sulphide Deposits in Canada and ~\$1.2M Private Placement Completed."

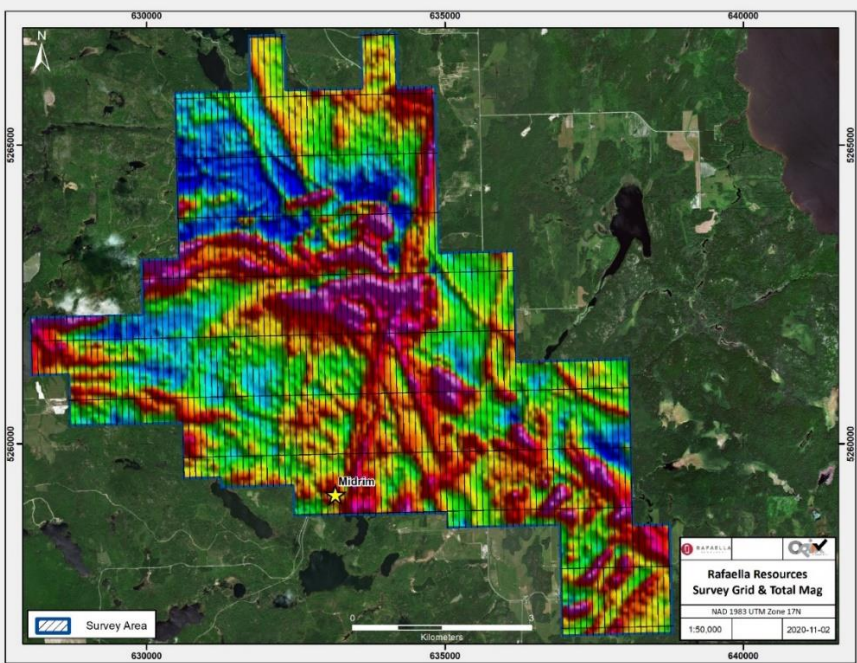


Figure 3. Planned VTEM™ Max flight coverage at 100m line spacing over the Midrim property. Total magnetic intensity is in the background.

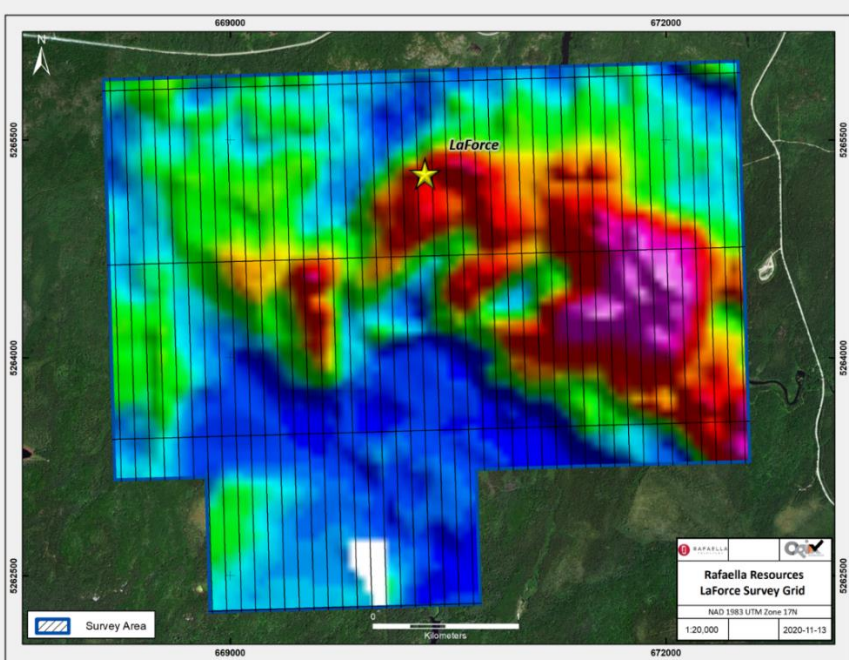


Figure 4. Planned VTEM™ Max flight coverage at 100m line spacing over the LaForce property. Total magnetic intensity is in the background.

Managing Director Steven Turner said: “Rafaella Resources is extremely pleased to commence this next stage of work on the highly prospective nickel-copper assets in Canada. It is intended to acquire drill ready targets that will materially enhance the projects as they progress to the next phase of development.”

This announcement has been authorised by the Board of Directors of the Company.

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About Rafaella Resources

Rafaella Resources Limited (ASX:RFR) is an explorer and developer of world-class mineral deposits. Rafaella owns the Santa Comba tungsten and tin development project in Spain, as well as the McCleery cobalt-copper project and the Midrim and Laforce high-grade nickel-copper-PGE sulphide projects in Canada. Santa Comba is located in a productive tungsten and tin province adjacent to critical infrastructure. The McCleery project was previously under-explored and holds significant potential. The Midrim and Laforce projects have had extensive drilling with some exciting intersections and offer significant upside for the Company.

To learn more please visit: www.rafaellaresources.com.au

Forward Looking Statements Disclaimer

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future development.

Competent Person Statement

The information in this announcement that relates to Geophysical Exploration is based on information compiled by Mr Russell Mortimer, who is employed as a Consultant to the Company through geophysical consultancy Southern Geoscience Consultants Pty Ltd. Mr Mortimer is a member of the Australian Institute of Geoscientists (AIG) and a member of the Australian Society of Exploration Geophysicists (ASEG) and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Mortimer consents to the inclusion in the report of matters based on information in the form and context in which it appears.