



3 October 2023

Airborne LiDAR and high-resolution photography flown across La Grande and Troilus Projects – James Bay, Canada

JBY's exploration continues to gather momentum with acquisition of key datasets which will further inform targeted exploration activities

Highlights:

- Airborne LiDAR and high-resolution photography flown across La Grande and Troilus Projects.
- LiDAR and high-resolution photography data will provide high-resolution topographical images of the surface to assist in identifying pegmatite outcrops.
- LiDAR is a proven exploration method used in the James Bay region by other successful lithium explorers in the discovery of lithium-bearing pegmatites.
- The La Grande Projects are a suite of highly prospective lithium properties located along trend from Winsome Resources' (ASX: WR1) Cancet Lithium Project and Patriot Battery Metals' (ASX: PMT) world-class CV5 deposit.
- The Troilus Project is a prospective lithium property which sits 5km to the north of Sayona's (ASX:SYA) Moblan deposit.

James Bay Minerals (ASX: **JBY**) ("**James Bay Minerals**" or "**the Company**") is pleased to advise that its maiden exploration campaign in the James Bay region in Quebec, Canada continues to make strong progress with airborne LiDAR and high-resolution photography successfully flown across both its La Grande and Troilus Projects. Perron Hudon Belanger (PHB) recently flew LiDAR and high-resolution photography across both Project areas, covering four key areas of interest – being the Troilus, Aqua, Aero and Joule Properties (Figure 1).

LiDAR is utilised to measure and map out the variations in slope, aspect and elevation to study landforms. JBY's exploration team will analyse all variations in slope and elevation to identify and confirm key priority areas which sit proud of other structures, as these are some of the key geological features of Lithium-Caesium-Tantalum (LCT) Pegmatites.

James Bay Executive Director, Andrew Dornan, commented:

"Obtaining LiDAR and high-resolution aerial imagery is another key step in our exploration process. Key data generated from these surveys will allow the team to focus in on key target areas across both the La Grande and Troilus Projects and refine our exploration targeting approach."

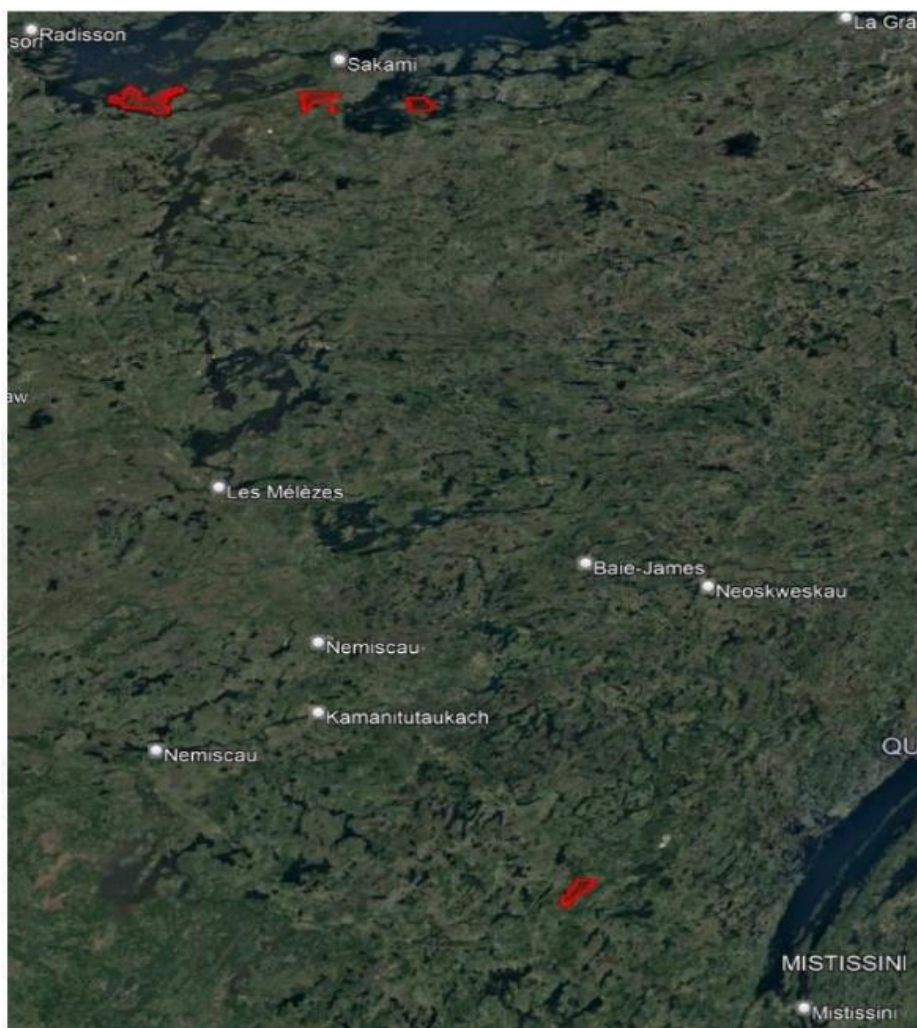


Figure 1 – Areas of Interest flown being Troilus, Joule, Aero and Aqua Properties.

LiDAR, an acronym of "light detection and ranging" or "laser imaging, detection and ranging" is a method for determining ranges by targeting an object or a surface with a laser and measuring the time for the reflected light to return to the receiver.

LiDAR surveys produce a high-resolution topographical image of the surface, allowing detailed desktop exploration of outcropping pegmatites and prospective geological features to be undertaken. The survey will deliver a digital elevation model (DEM) on a 1x1m grid scale with an overlying image of 16cm pixel resolution.

The high-resolution nature of the survey is designed to uncover undiscovered or hidden pegmatites beneath vegetation. Pegmatite outcrops are more resistant to weathering than other lithologies present in the project area and tend to present as topographic highs which can be detected by the high-resolution LiDAR survey. Importantly, this technique has been successfully used in the James Bay region by other explorers and producers in the discovery of lithium-bearing pegmatites.

Background on James Bay Minerals

James Bay has acquired a 100% interest in one of the largest lithium exploration portfolios in the James Bay region, covering an area of 22,438Ha or 224km². The Joule, Aero and Aqua properties are located in

the La Grande sub province along trend from the Corvette deposit, where Patriot Battery Metals (ASX: PMT) recently reported a maiden Inferred Mineral Resource Estimate of 109.2Mt at 1.42% Li₂O and 160ppm Ta₂O₅ (0.40% Li₂O cut-off grade).¹

The Troilus Project is located further to the south sitting only 5km to the north of Sayona's Moblan Lithium Project and proximity to Winsome Resources' Sirmac-Clappier Project.

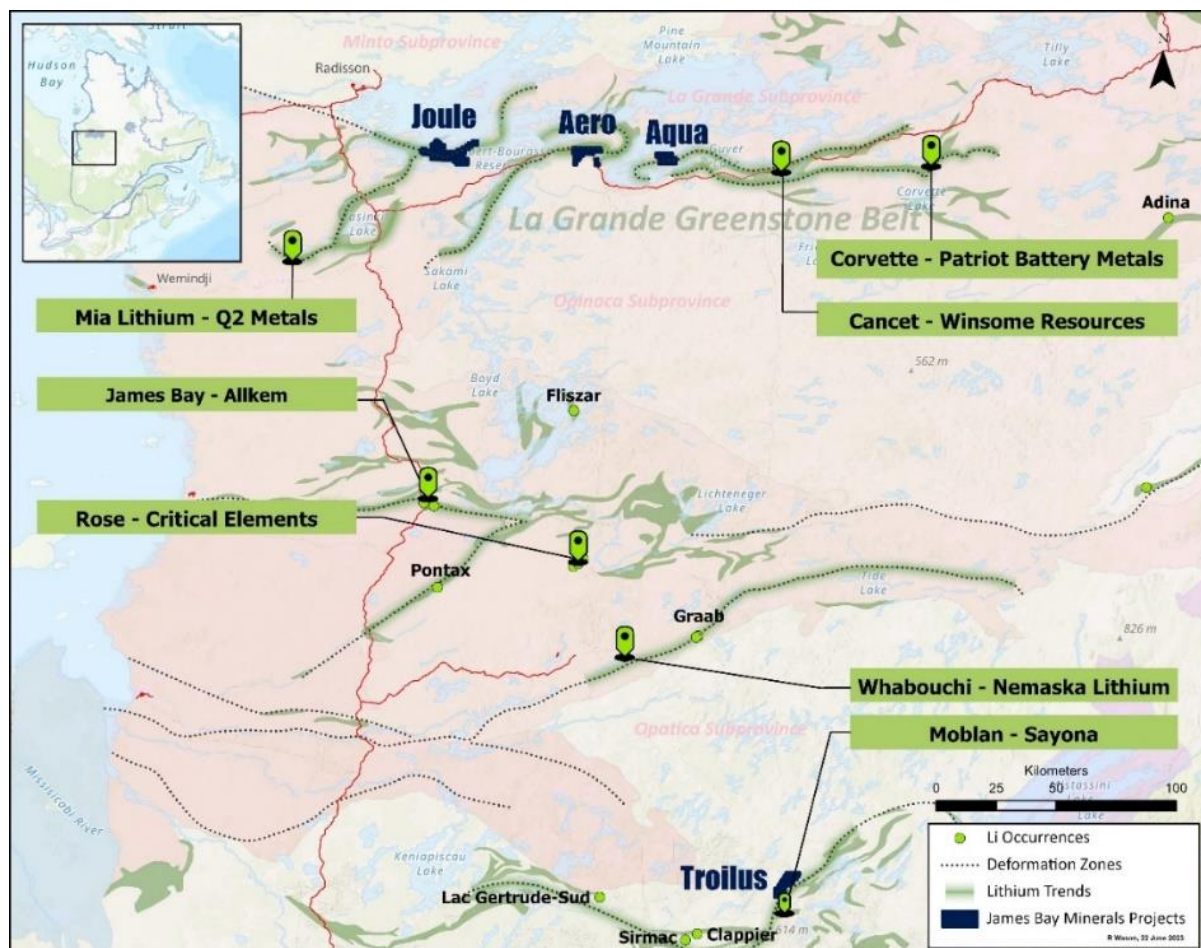


Figure 2 - James Bay Minerals' key lithium project locations in Quebec, Canada.

The flagship Joule Property encompasses a ~24km long prospective deformation zone along a regional fault which has been subject to minimal historical exploration. The eastern segment of the deformation zone extends for 14km and fan tails to reach a width up to 1.5km.

The Aero Prospect contains approximately 12km of deformation zones which are considered highly prospective for LCT pegmatites. Of note, the nearby Cancet (Winsome Resources Ltd) and Corvette (Patriot Battery Metals) properties both exhibit deformation zones upon which significant exploration success has occurred¹.

All the properties have the three key ingredients required to host massive lithium-caesium-tantalum (LCT) pegmatites:

¹ See Patriot Battery Metals Announcement dated 31 July 2023: "Patriot Announces the Largest Lithium Pegmatite Resource in the Americas at CV5, Corvette Property, Quebec, Canada"

- Neo Archaean rocks;
- Placement along major regional faults; and
- Lying on greenstone belts in proximity to granites.

This announcement is authorised for ASX lodgement by the Board of Directors of James Bay Minerals Ltd.

ENDS

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This announcement may contain certain forward-looking statements, guidance, forecasts, estimates or projections in relation to future matters (Forward Statements) that involve risks and uncertainties, and which are provided as a general guide only. Forward Statements can generally be identified by the use of forward-looking words such as “anticipate”, “estimate”, “will”, “should”, “could”, “may”, “expects”, “plans”, “forecast”, “target” or similar expressions and include, but are not limited to, indications of, or guidance or outlook on, future earnings or financial position or performance of the Company. The Company can give no assurance that these expectations will prove to be correct. You are cautioned not to place undue reliance on any forward-looking statements. None of the Company, its directors, employees, agents or advisers represent or warrant that such Forward Statements will be achieved or prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this announcement. Actual results may differ materially from those anticipated in these forward-looking statements due to many important factors, risks and uncertainties. The Company does not undertake any obligation to release publicly any revisions to any “forward- looking statement” to reflect events or circumstances after the date of this announcement, except as may be required under applicable laws.

Competent Person Statement

The information in this announcement that relates to Exploration Results at the La Grande and Troilus Projects is extracted from the Company’s Prospectus dated 19 July 2023 (Prospectus). The Company confirms that it is not aware of any new information or data that materially affects the information contained in the Prospectus.