



18 September 2023

James Bay commences maiden Canadian lithium exploration program

Highlights:

- Maiden fieldwork program has commenced at the Aero Property, part of JBY's La Grande project portfolio in Quebec, with exploration partner Breakaway Exploration (BKE).
- JBY has established a camp with five exploration personnel focused on carrying out a targeted field campaign across key areas of the Aero Property.
- Field program will continue until snowfall restricts activities, which is expected around mid-October 2023.
- Aero Property is well serviced by established infrastructure including sealed roads, power lines and cellular coverage, facilitating the efficient execution of exploration activities.
- The Aero property is a prospective lithium property located along trend from Winsome Resources' (ASX:WR1) Cancet Lithium Project and Patriot Battery Metals (ASX:PMT) Corvette Lithium Project.

James Bay Minerals (ASX: JBY) ("James Bay", or "the Company") is pleased to announce that it has commenced its maiden exploration program at the Company's Aero Property in the La Grande Greenstone Belt in Quebec, Canada. The program will target high-priority areas, with exploration works being undertaken by JBY's exploration partner, Breakaway Exploration (BKE).

The Aero Property consists of 89 contiguous claims covering an area of 4,365 hectares. The Aero Property encompasses approximately 12km of deformation zones which are considered highly prospective for large-scale Lithium- Caesium-Tantalum (LCT) pegmatites. The exploration potential of the district is highlighted by the nearby Cancet (Winsome Resources Limited) and Corvette (Patriot Battery Metals Inc.) discoveries, both of which are located along major deformation zones which run through their properties.

The initial field program will include mapping of targeted areas of the Aero Property, along with the collection of rock chips and channel samples for analysis. The field program will commence immediately and continue until the first snow fall arrives (expected around mid-October 2023). Established infrastructure, including sealed roads which run through the property, allow for easy access across the property.

James Bay Executive Director, Andrew Dornan, commented:

"We are pleased to announce the start of our maiden exploration program, which marks a significant milestone for the Company. It's great to have boots on the ground at our Aero Property and we are looking forward to undertaking a focused and systematic field program. The skills, expertise and experience that our exploration partner Breakaway Exploration brings to the table is something we are very grateful to have access to. We look forward to providing further updates as our field program progresses."



Figure 1 - Breakaway Exploration: established exploration camp within proximity of JBY's Aero Property.

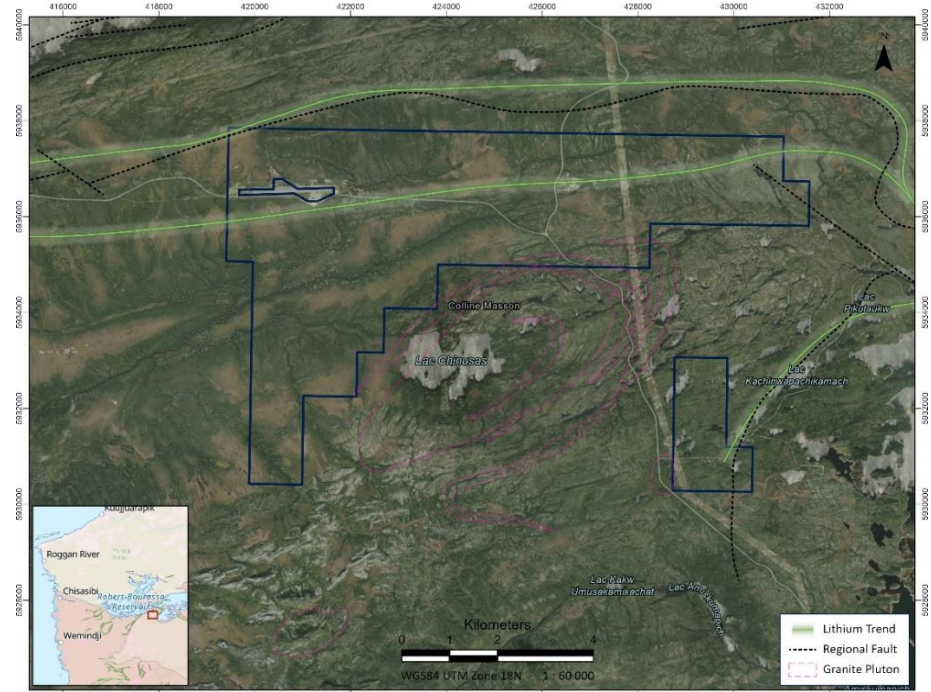


Figure 2 - Aero Property satellite imagery.

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 recently reported a maiden Inferred Mineral Resource Estimate¹ of 109.2Mt at 1.42% Li₂O and 160ppm Ta₂O₅ (0.40% Li₂O cut-off grade).

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.

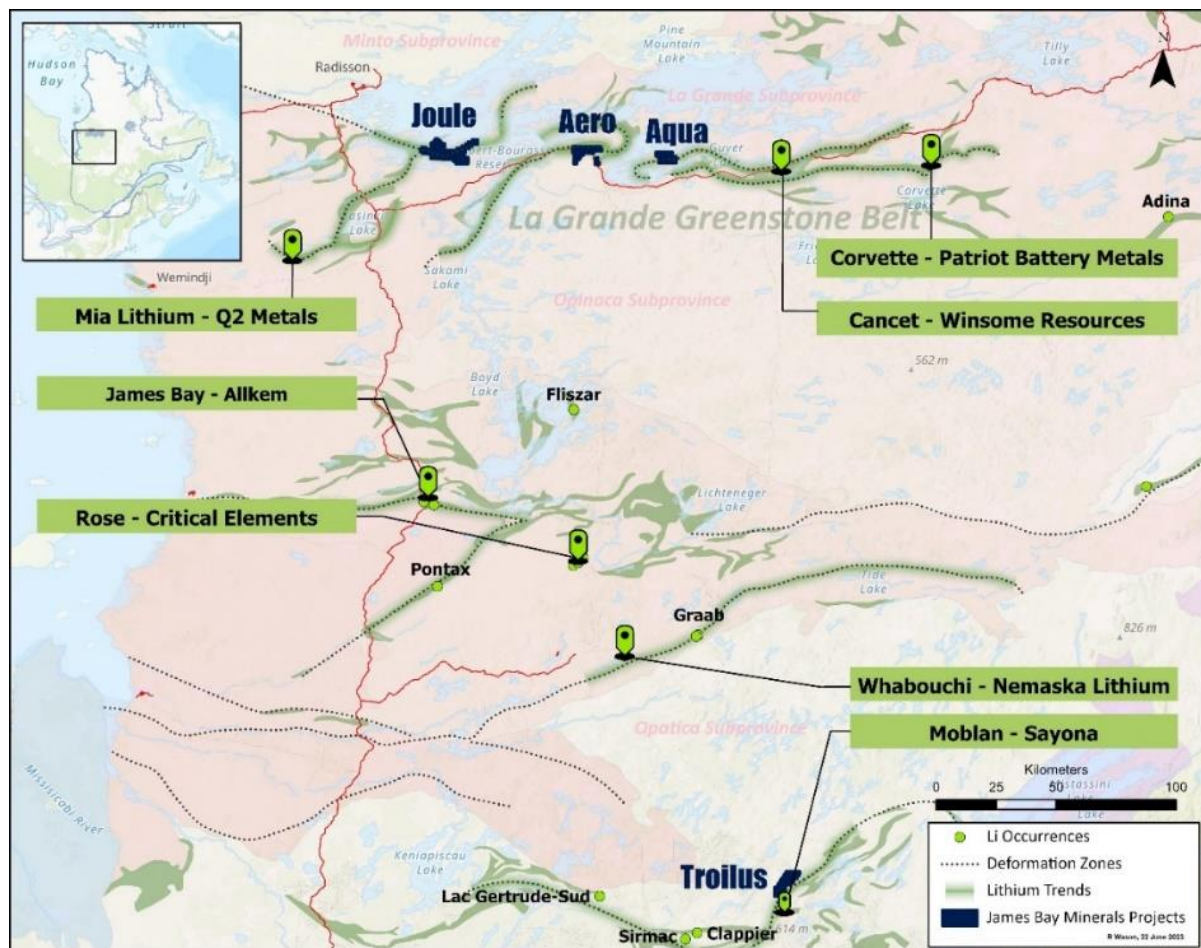


Figure 3 - James Bay Minerals' key lithium project locations in Quebec, Canada.

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 Property 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 occurred.

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".

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

- 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.

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Forward-looking statements

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