Loyal Lithium

ASX LLI

ASX Announcement | 9 September 2024

Loyal Lithium Partners with McGill University to Access a CAD$1M Research Grant to Advance Canadian Lithium

Highlights

- **Loyal Lithium has partnered with the prestigious McGill University to access a CAD$1M research grant from the Natural Sciences and Engineering Research Council of Canada.**
- **McGill University's Hydrothermal Geochemistry Group (HGG) will investigate the unique geological settings of the Trieste Lithium Project and the Hidden Lake Lithium Project under the research title 'Lithium in Pegmatites – from Source to Sink'.**
- **Known for their collaborative discovery advancements across Canada [1], the HGG team has taken initial interest in the Trieste Greenstone Belt due to its world-class mineralisation demonstrated within Winsome's Adina Project, Azimut/SOQUEM's Galinée Project, Rio Tinto/Midland Exploration's Galinée Project, and Loyal Lithium's Trieste Lithium Project.**
- **Through extensive sampling and analysis, the HGG's research aims to develop LCT pegmatite models. These models will help explorers like Loyal Lithium quickly identify large spodumene occurrences, reducing exploration time and cost.**
- **Professor A.E. (Willy) Williams-Jones, along with research associates and post-doctoral students, have joined the site team to collect over 300 core samples for extensive analysis.**
- **With $6.3M in funding and extensive lithium prospects revealed, Loyal Lithium is well positioned to strategically advance the Trieste Greenstone Belt into a premier lithium hub.**

Loyal Lithium Limited (ASX:LLI) (**Loyal Lithium**, **LLI**, or the **Company**) is pleased to announce that it has partnered with McGill University to access a portion of a CAD$1M research grant from the Natural Sciences and Engineering Research Council of Canada. The Hydrothermal Geochemistry Group (HGG) at McGill University, led by Professor A.E. (Willy) Williams-Jones, will investigate the unique geological settings of the Hidden Lake Lithium Project [2], NWT, and the Trieste Lithium Project, James Bay, Quebec under the research title "Lithium in Pegmatites – from Source to Sink." Through extensive sampling and analysis, the HGG's research aims to develop LCT pegmatite models to help explorers like Loyal Lithium quickly identify large spodumene occurrences, reducing exploration time and cost. The research team has taken initial interest in the Trieste Greenstone Belt due to its world-class mineralisation demonstrated within Winsome's Adina Project [3, 4], Azimut/SOQUEM's Galinée Project, Rio Tinto/Midland Exploration's Galinée Project, and Loyal Lithium's Trieste Lithium Project [5-12].

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Investor Centre

McGill University, Logan Professor of Geology and Geochemistry, Department of Earth and Planetary Sciences, Hydrothermal Geochemistry Group: A.E. (Willy) Williams-Jones, FRSC, commented:

"I am delighted to have the opportunity to join forces with our industry partners at Loyal Lithium & Winsome Resources. The pegmatites that I have seen on their properties are truly spectacular and will be essential to our emerging North American Lithium industry."

"Our research is intended to add value by providing a deeper insight into the origins of the rich spodumene pegmatites seen at surface at the Trieste Lithium Project. Research projects like this are key to promoting and strengthening links between research organisations and industry in Québec and across Canada. The knowledge transfer will strengthen Québec's position as a leader in critical metals research and innovation."

Photo 1: Loyal Lithium with McGill University Hydrothermal Geochemistry Group at Dyke #01, Trieste Lithium Project.

Loyal Lithium's Managing Director, Mr. Adam Ritchie, commented:

"I believe that technology and innovation are among Loyal Lithium's key strengths and a unique foundation for growth of a pre-resource lithium company. We are pleased to have the prestigious Hydrothermal Geochemistry Group of McGill University join our team at the Trieste Lithium Project this field season. The work planned by the McGill Hydrothermal Geochemistry Group has the potential to yield real-world innovative outcomes, benefiting both Loyal Lithium and the broader Canadian lithium industry.

Quebec based lithium resources defined by Winsome Resources and Patriot Battery Metals are world-class and immensely strategic, aligning with the North American agenda for a timely and reliable source of critical minerals essential for transforming the transportation and energy sectors.

By harnessing the expertise of academia, industry, and government, we can accelerate the advancement of the Canadian critical minerals industry and develop optimal development solutions for future lithium sources."

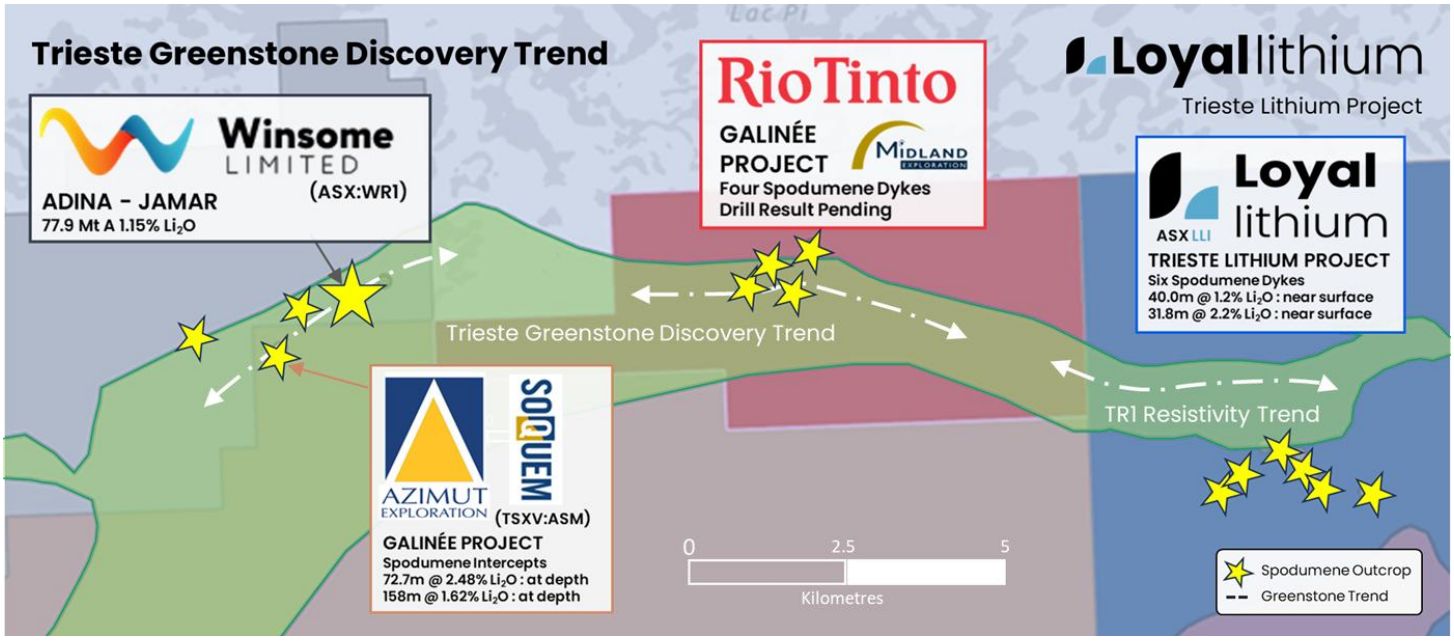

Figure 1: Trieste Greenstone Discovery Trend: Spodumene discoveries across the Trieste Greenstone in relation to Loyal lithium's TR1 Resistivity Trend at the Trieste Lithium Project.

The Trieste Greenstone Belt has drawn significant initial interest from the research team as it hosts several significant lithium discoveries from Winsome's Adina Lithium Project, Azimut/SOQUEM's Galinée, Rio Tinto/Midland Exploration's Galinée Lithium Project, and Loyal Lithium's Trieste Lithium Project over an 18 km span. The project aims to advance exploration techniques, train new geologists, develop environmentally responsible exploration methods, and support Quebec's Critical Minerals Industry.

Photo 2: Dr Catherine Crotty, Geoscientist from Winsome Resources (left) analysing outcrops at the Trieste Lithium Project and A.E. (Willy) Williams-Jones, FRSC from McGill University (right) assessing, logging and sampling Loyal Lithium's drill core in Chibougamau.

Note: The width, length and orientation of this portion of LCT pegmatite dyke with spodumene mega crystals is unknown due to surrounding recent soil and vegetation cover. The outcrop consists primarily of spodumene, albite, cleavelandite, quartz and muscovite minerals. Although Loyal Lithium has not provided a visual estimate of pink-coloured spodumene mineral abundance in the above outcrop photo, highly mineralised outcrop photos should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates or photos also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

Photo 3: Loyal Lithium's Managing Director, Adam Ritchie, uncovering a Spodumene bearing pegmatite outcrop with McGill's HGG.

HGG's research aims to develop innovative models to help LCT pegmatite explorers identify the largest and most abundant spodumene occurrences within pegmatites. This will ultimately minimise the number of drill holes needed to target and locate high-grade lithium mineralisation areas within broader pegmatite systems. The research team includes the applicant, A. Williams-Jones (McGill University), co-applicants, G. Pearson (University of Alberta) and M. Steele-MacInnis (University of Alberta), and collaborators, B. Kjarsgaard (Geological Survey of Canada) and H. Mvondo (MRNF).

By welcoming top global researchers and establishing collaborations between industry and academia, Loyal Lithium remains dedicated to integrating cutting-edge technologies into our exploration techniques and strategies. Our commitment to being an industry leader in advanced technology integration across all facets of our business enables us to pioneer first-mover exploration techniques, providing a significant competitive advantage in the industry.

With $6.3M in funding, Loyal Lithium is strategically positioned to collaboratively advance the Trieste Greenstone Belt into a premier lithium hub, setting a new standard in the industry and paving the way for future exploration endeavours.

This announcement has been authorised for release by Loyal Lithium's Board of Directors

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About Loyal Lithium

Loyal Lithium Limited (ASX: LLI) is a well-structured listed resource exploration company with projects in Tier 1 North American mining jurisdictions in the Northwest Territories, Canada, James Bay Lithium District in Quebec, Canada and Nevada, USA. Through the systematic exploration of its projects, the Company aims to discover concentrations of lithium minerals and delineate JORC compliant resources, creating value for its shareholders.

Future Performance

This announcement may contain certain forward-looking statements and opinion Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Loyal Lithium Limited.

Competent Person's Statement

The Company confirms that it is not aware of any other new information or data that materially affects the information included in the original market announcements referred to above. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

List of References for Further Shareholder and Investor Reading:

1 Möller, V and Williams-Jones, A, E. Petrogenesis of the Nechalacho Layered Suite, Canada: Magmatic Evolution of a REE–Nb-rich Nepheline Syenite Intrusion. Journal of Petrology, Volume 57, Issue 2, February 2016, pp 229–276,

2 LLI ASX Announcement: 19 October 2023: Cumulative Mineralised Strike Length extends to 3,250m at the Hidden Lake Lithium Project, NWT, Canada.

3 WR1 ASX Announcement: 28 May 2024: Adina Mineral Resource increases 33% to 78Mt at 1.15% Li2O with 79% Indicated.

4 LLI ASX Announcement: 21 September 2023: Collaboration MOU signed with Winsome Resources for the Trieste Lithium Project, James Bay, Quebec, Canada.

5 LLI ASX Announcement: 16 August 2023: Multiple Spodumene Bearing Pegmatite Dykes Discovered at the Trieste Lithium Project, James Bay, Canada.

6 LLI ASX Announcement: 4 December 2023: New Discovery of 6th Spodumene Bearing Pegmatite Dyke at the Trieste Lithium Project, James Bay, Quebec, Canada.

7 LLI ASX Announcement: 2 January 2024: High Grade Channel Assay Results at Trieste Lithium Project, James Bay, Quebec, Canada.

8 LLI ASX Announcement: 18 January 2024: Major Lithium Discovery Confirmed from First Drillhole Assays at Trieste Lithium Project, James Bay, Quebec, Canada.

9 LLI ASX Announcement: 5 February 2024: Geological Interpretation Exposes the Potential Scale of the Trieste Lithium Project, James Bay, Quebec, Canada.

10 LLI ASX Announcement: 21 March 2024: World Class Lithium and Tantalum Grades recorded within Dyke #05 Drill Intercepts at Trieste Lithium Project, James Bay, Quebec, Canada.

11 LLI ASX Announcement: 24 April 2024: Trieste Lithium Project Takes Shape with More Thick High-Grade Intercepts from Dyke #04 - James Bay, Quebec, Canada.

12 LLI ASX Announcement: 18 April 2024: Innovative Geophysical Survey to Reveal the Potential Scale of the Trieste Lithium Project, James Bay, Quebec, Canada.