

Beyond Lithium Establishes Zonation at Cosgrave Lake Project Indicating Proximity to Potential Spodumene Zone

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HIGHLIGHTS

- Recent exploration at the Cosgrave Lake Project established a mineral and fractionation zonation around the Beyond Lithium's recently discovered Allen Graeme ("AG") Pluton comparable to the MNW spodumene-bearing pegmatite's mineral zonation located 2.8km north of the Cosgrave Lake Project.
- A grab sample from a pegmatite just outside the green muscovite zone composed of quartz, feldspar, and alluaudite returned with 0.39% Li₂O (1,832ppm Li) and 2.77% Manganese (Mn) suggesting the pegmatite is highly fractionated.
- The 0.39% Li₂O grab sample in pegmatite indicates the proximity to the potential discovery of a higher-grade lithium spodumene zone.
- Over 4,000 field data points of lithology and mineralogy have been compiled from the Phase 2 mapping program at Cosgrave Lake.
- Several groups of pegmatite outcrops were outlined by the mapping program with some of these pegmatite outcrop groups measuring up to 10 to 30 meters in width and over one kilometer in strike length.

Winnipeg, November 20, 2023 - [Beyond Lithium Inc.](#) (CSE: BY) (OTCQB: BYDMF) (the "Company" or "Beyond Lithium") is pleased to announce that recent exploration work at the Company's Cosgrave Lake Project indicate the proximity to the potential discovery of a higher-grade lithium spodumene zone.

"We could not be happier with the results of the exploration program at Cosgrave Lake following the discovery of the Allen Graeme ("AG") Pluton earlier this summer (see news release dated August 1, 2023)," said Allan Frame, President & CEO of Beyond Lithium. "The compilation of over 4,000 data points of lithology and mineralogy, 133 grab samples, including a sample with elevated Li₂O values, indicate the proximity to a potential high-grade lithium spodumene zone on the property. We are optimistic that we could add a third spodumene discovery to our portfolio, with all three projects being within a 100-kilometer radius."

Lawrence Tsang, VP Exploration of Beyond Lithium, commented, "It is very exciting news for Beyond Lithium to have a grab sample from a pegmatite away from the AG pluton and just outside of the green muscovite zone assaying 0.39% Li₂O. From desktop study to boots on the ground, Beyond Lithium's technical team systematically explored the Cosgrave Lake Project by first establishing background geochemistry and identifying the source and structure of the Project. We designed the exploration program relying on field data and observations and correlated the fractionation trend and the mineral zonation to the generic scientific model for LCT deposits. It took our team only a few months of field work to discover the source for lithium mineralization, the AG Pluton, establish the mineral zonation, delineate the fractionation trend and locate the 0.39% Li₂O pegmatite sample. These results reaffirm the effectiveness of Beyond Lithium's exploration model which is entirely based on a scientific and systematic approach. Beyond Lithium will continue to focus on exploring the potential proximal spodumene-bearing zone at the Cosgrave Lake Project and, in unison, will follow up on the newly established northeast zone that sits 6.5km northeast of the AG pluton and similarly towards the southwest part of the AG pluton in the next field program."

Regional Geological Context

The Cosgrave Lake Project is located in the Georgia Lake District. This district is an active and prolific lithium exploration area with more than 28 lithium occurrences recorded by Ontario Geological Survey that are hosted in five major pegmatite groups including the MNW, the Georgia Lake, the Barbara Lake, the Postogoni Lake, and the Forgan Lake (Breaks 2008). Beyond Lithium has three projects in the Georgia Lake District: Cosgrave Lake (8,993 ha), Gathering Lake (6,948 ha), and Arrel Lake (3,585 ha). These Projects are located next to:

Imagine Lithium's¹ Jackpot Lithium Project which has a historical resource in the Main zone with 2 Mt at 1.09% Li₂O.

Rock Tech Lithium's² Georgia Lake Project which has published a pre-feasibility study in Nov 2022 with a Mineral Resource estimate of a total indicated mineral resources of 10.6mt grading 0.88% Li₂O and a total inferred mineral resource of 4.2mt grading 1.00% Li₂O.

Balkan Mining's³ flagship Gorge Lithium Project where they recently commenced drilling.

Infrastructure

The Cosgrave Lake Project can be accessed via the Trans-Canada Highway and a network of well-maintained logging roads. The Project is less than 20km north of the town of Nipigon, and about 100km to the northeast of Thunder Bay. The Project also has excellent nearby infrastructure including ports, powerline, local labor force and equipment, and communications (Figure 1).

Figure 1 Map of Beyond Lithium Projects, Cosgrave Lake, Gathering Lake (E, W, S), and Arrel Lake in the Georgia Lake District

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Geology and Generic LCT Deposit Scientific Model

The Georgia Lake District illustrated in Figure 1 is the host of several well-known fertile plutons namely the MNW pluton, the Barbara Lake pluton, and the Pine Portage pluton. These well-established fertile plutons in the Georgia Lake District are associated with several prolific lithium pegmatite belts including the Imagine Lithium's¹ Jackpot Project and Rock Tech Lithium's² Georgia Lake Project.

Beyond Lithium started its prospecting program at the Cosgrave Lake Project in late May 2023 and discovered a new LCT pegmatite intrusive stock, the Allen Graeme ("AG") pluton (see news release dated August 1, 2023). The AG Pluton shares similarities with other significant lithium discoveries in the Georgia Lake District, namely the MNW pluton, the Barbara Lake pluton, and the Pine Portage pluton. Worthy of note is that the chemistry of the Cosgrave Lake granite source (the Glacier Lake Batholith) and the AG pluton is quite similar to the concentration in the Tanco source and Tanco pluton located at Bernie Lake, Manitoba (Table 1 and Figure 2).

In other words, the size and geochemical characteristics of the AG Pluton indicate its potential as a source of concentrated fluids, volatiles, lithium, and rare earth minerals, making it an exceptionally promising area for exploration.

Cosgrave Lake and Tanco Plutons Comparison	Be ppm	Cs ppm	Li ppm
Cosgrave Pluton - AG Pluton Channel (min)	3.63	3.92	33.8
Cosgrave Pluton - AG Pluton Channel (max)	489	58.91	126
Tanco Granite Pluton (average)	4	4	57
Cosgrave Lake and Tanco Granite Source Comparison	Be ppm	Cs ppm	Li ppm
Cosgrave Source - Glacier Lake Intrusive Granite (average)	1	3	20
Cosgrave Source - Glacier Lake Potassic Pegmatite (average)	1.13	5.6	18
Tanco Anatectic Source (average)	3	3	20

Table 1 Comparison of the Chemistry Between the Cosgrave Lake Granite Source and the AG Pluton with

Tanco Source and the Tanco Pluton⁶

Figure 2 Chemical Fraction from Source to Pegmatite of the Tanco Deposit⁷

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Beyond Lithium advanced the exploration at the Cosgrave Lake Project to a Phase 2 program after the discovery of the AG pluton. The Phase 2 program focused on the detailed and systematic mapping and sampling of the property starting from the core of the AG pluton and moving outwards in order to identify the mineral fractionation trend for lithium mineralization. To date, Beyond Lithium has collected a total of 133 grab samples and recorded more than 4,000 field data points of lithology and mineralogy at the Cosgrave Lake Project (Figure 3).

Figure 3 Cosgrave Lake Project Phase 2 Lithological Mapping (>4,000 data points) Further Defined the AG Pluton and the Glacier Lake Batholith-Metasediment Contact in Relation to the Sample Locations

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Figure 4 Cosgrave Lake Project Phase 2 Delineated Mineral Zonation around the AG Pluton

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The Phase 2 program successfully delineated a mineral zonation around the AG pluton transitioning from a pegmatitic textural border zone to a beryl zone and to a green muscovite zone (Figure 4). Just outside of the green muscovite zone located the furthest away from the AG pluton to the northeast, a grab sample from a pegmatite composed of quartz, feldspar, and alluaudite minerals returned with 0.39% Li₂O (1,832ppm Li) and 2.77% Mn. The mineral zonation at the Cosgrave Lake Project is comparable with the mineral zonation of the MNW lithium occurrence associated with the MNW stock located 2.8km north of Cosgrave Lake Project. The MNW spodumene-bearing pegmatite with up to 5.82% Li₂O transitions from beryl-tourmaline at the border zone to muscovite-alluaudite in the intermediate zone then to spodumene-quartz in the core zone (Zayachkivsky 1985). The mineral and lithium grade zonation at the Cosgrave Lake Project resemble the generic lithium-cesium-tantalum ("LCT") pegmatite fractionation scientific model which signifies and proves:

1. The AG pluton is a fertile stock that is concentrated of lithium-bearing volatiles to form LCT pegmatites.
2. The fractionation trend evolves outwards around the AG pluton and generally follows the overall northeast-southwest granite-metasedimentary contact orientation (Figure 5).
3. The 0.39% Li₂O grab sample with 2.77% Mn in pegmatite with alluaudite indicates the pegmatite is highly fractionated supported by the high manganese, Mn, and lower iron ratio (Breaks 2004).
4. The 0.39% Li₂O grab sample in pegmatite also implies the proximity to the potential discovery of a higher-grade lithium spodumene zone.

Figure 5 Cosgrave Lake Project Fractionation Plot of Log(K/Cs) vs (K/Rb) Outlining the Highly/Moderately/Weakly Fractionated Samples with Li ppm Colour Coded

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Measuring the ratio variations between potassium ("K"), cesium ("Cs"), rubidium ("Rb") in samples is a common and useful exploration tool to display the fractionation trend or the relative degree of evolution of S-type, peraluminous granites and related pegmatite granites and the rare-element pegmatite groups that fractionated from the parent granitic rocks. With increasing fractionation of the pegmatite-forming melt, the compositions of the potassium feldspar and mica become more enriched in rubidium and cesium thus the fractionation trend point to the lower left corner in the plot as the higher fractionated area.

Generally, pegmatites with the highest degree of fractionation have a K/Rb ratio of less than 30 (Breaks 2004). Figure 5 plotted up the log of K/Cs ratio against the log of K/Rb ratio outlining the higher fractionated

samples in the lower left corner of the plot with an average of 167ppm Li and 36 K/Rb and the lower fractionated samples in the top right corner of the plot with an average of 63ppm Li and 170 K/Rb which suggest the H fractionation zone is proximal to the potential spodumene zone.

Figure 6 plotted up the high ("H"), moderate ("M"), and low ("L") fractionated samples and the three zones, H, M, and L, outlines coincide with the mineral zonation where the border zone correlates with the low fractionation zone, the beryl zone correlates with the low to moderate fractionation zones, and the green muscovite zone correlates with the moderate to high fractionation zones (Figure 6). This strong correlation between the fractionation trend and the mineral zonation at Cosgrave Lake supports the fertility of the AG Pluton that it has high concentration of lithium volatiles to fractionate.

Figure 6 Map of High, Moderate, Low Fractionation Zonation from the Plot of Log(K/Cs) vs (K/Rb) Coincides with Mineral Zonation

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Summary

The Phase 2 mapping program at the Cosgrave Lake Project included over 1,000 pegmatite outcrop data points recording the size, the color, and the minerals composition of these pegmatite outcrops. These pegmatite outcrops generally range from 1 to 10 meters and locally up to 50 meters in width. A few groups of pegmatite outcrop measured from 10 to 30 meters in width with over one kilometre in strike length orienting northeast-southwest direction subparallel to the stratigraphy. The consistency of the overall northeast-southwest pegmatites trend continues to vector the exploration to follow the northeast-southwest orientation.

Furthermore, a northeast zone emerges about 6.5km northeast from the AG pluton along the 11km long northeast-southwest exploration trend. Multiple pegmatites with garnet and muscovite hosted in metasediment assayed over 100ppm Li in the northeast zone (Figure 8). The cluster of these over 100ppm Li samples located 6.5km northeast from the AG pluton supports that LCT mineralization persists across the exploration trend.

In short, the Phase 1 and 2 exploration programs completed at the Cosgrave Lake Project have built a solid fundamental geological model that is comparable to a generic footprint of LCT deposit and fractionation trend models (Figure 7) (Bradley et al. 2017). Beyond Lithium will continue to focus on exploring the potential proximal spodumene-bearing zone towards the NE direction from the 0.39% Li₂O pegmatite grab sample as labeled as "5" in Figure 7.

Figure 7 Cosgrave Lake Exploration Progress in Comparison to LCT Deposit and Fractionation Trend Models (Bradley et al. 2017): 1) Parental Granite - Glacier Lake Batholith 2) Fertile Pluton - AG Pluton 3) Elevated Be - Beryl Zone 4) Pegmatite Zone - Green Muscovite and 0.39% Li₂O Pegmatite Grab Sample 5) Exploration Target for Potential Spodumene Zone

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Figure 8 Map of the Northeast Zone in Relation to the Overall Exploration Trend and the Main AG Pluton Zone

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Allan Frame added: "Beyond Lithium has the largest package of greenfield lithium exploration projects in Ontario with 63 high potential lithium properties totalling over 195,000 hectares. In last than six months of field work, we built a very large and detailed geological and geochemical database covering 50 of the 63 projects. The database to date has more than 12,000 data points of lithology and mineralogy and over 1,300 grab samples and over 500 LIBS samples. These results will help guide our upcoming drill campaign planning at our Victory and Ear Falls spodumene projects and will also give us good geological indicators of

the next steps on exploration at Cosgrave and other projects."

He concluded: "We are awaiting assay results from over 450 rock and channel samples, 50% of which come from our Victory and Ear Falls spodumene projects, and 240 drill core samples from our recently completed drill program at Ear Falls. We expect to be announcing assay results on a regular basis starting next week."

REFERENCES

¹Imagine Lithium <https://iminelithium.com/jackpot/>

²Rock Tech Lithium

<https://www.rocktechlithium.com/news/georgia-lake-project:-pre-feasibility-study-published>

³Balkan Mining <https://www.balkanmin.com/ontario-assets/>

⁴Breaks, F.W., Selway, J.B. and Tindle, A.G. 2004. A Review of Rare-Element (Li-Cs-Ta) Pegmatite Exploration Techniques for the Superior Province, Canada, and Large Worldwide Tantalum Deposits; Ontario Geological Survey, Exploration and Mining Geology, Vol. 14, Nos. 1-4, pp. 1-30.

⁵Breaks, F.W., Selway, J.B. and Tindle, A.G. 2008. The Georgia Lake rare-element pegmatite field and related S-type, peraluminous granites, Quetico Subprovince, north-central Ontario; Ontario Geological Survey, Open File Report 6199, 176p.

⁶Tindle, A.G., Breaks, F.W. and Selway, J.B. 2008. Electron microprobe and bulk rock and mineral compositions from S-type, peraluminous granitic rocks and rare-element pegmatites, Georgia Lake pegmatite field, Quetico Subprovince, north-central Superior Province of Ontario; Ontario Geological Survey, Miscellaneous Release-Data 231.

⁷London, D., 2016, Rare-Element Granitic Pegmatites, chap. 8 of Verplanck, P.L., & Hitzman, M.W., eds., Rare Earth and Critical Elements in Ore Deposits: Reviews in Economic Geology, 18, pp.165-193

⁸Bradley, DC, McCauley, AD and Stillings, LL 2017, Mineral-deposit model for lithium-cesium-tantalum pegmatites: United States Geological Survey, Reston, VA, Scientific Investigations Report 2010-5070, 58p.

⁹Rock Tech Resources Inc. James Bay Midarctic Development Inc. Report on Exploration Work 2009, Georgia Lake Lithium and Rare-Earths Project, by Melville William Rennick, 2010.

¹⁰Zayachkivsky, B., 1985, Granitoids and rare-element pegmatites of the Georgia lake area, northwestern Ontario, Faculty of Science Lakehead University, Thunder Bay, Ontario, 252p.

Quality Assurance/Quality Control

All collected rock samples were put in sturdy plastic bags, tagged, and sealed at site. Sample bags were then put in rice bags and kept securely before being sent by road transport or delivered by the crew supervisor to SGS's preparation facility in Red Lake or Sudbury, Ontario, for sample preparation. Pulps are analyzed at the SGS facility in Burnaby, BC. All samples are analyzed with Four-Acid Digestion/Combined ICP-AES/MS package (49 elements). Samples with lithium overlimit (>10,000 ppm Li) are analyzed with another Four-Acid Digestion with higher detection limit of up to 10% Li. Batches of samples with overlimit >10,000 ppm or 1% Li are analyzed with Sodium Peroxide Fusion for validation. The QA/QC protocol included the insertion and monitoring of appropriate reference materials, in this case high concentration and low concentration certified OREAS and CDN lithium standards to validate the accuracy and precision of the assay results.

Qualified Person and Third-Party Data

The scientific and technical information in this news release has been reviewed and approved by Lawrence Tsang, P.Geo., VP Exploration of the Company. Lawrence Tsang is a "qualified person" as defined in National Instrument 43-101 - Standards of Disclosure for Mineral Projects.

About Beyond Lithium Inc.

[Beyond Lithium Inc.](#) is the largest greenfield lithium exploration player in Ontario with 63 high potential greenfield lithium properties totalling over 195,000 hectares. The Company has adopted the project generator business model to maximize funds available for exploration projects, while minimizing shareholder dilution. Beyond Lithium is advancing certain of its projects with its exploration team and will seek to option other properties to joint venture partners. Partnering on various projects will provide a source of non-dilutive working capital, partner-funded exploration, and long-term residual exposure to exploration success.

Beyond Lithium currently has 33,874,482 common shares outstanding.

Please follow @BeyondLithium on Twitter, Facebook, LinkedIn, Instagram and YouTube.

For more information, please refer to the Company's website at www.beyondLithium.ca

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION: This news release includes certain "forward-looking information" within the meaning of applicable Canadian securities legislation. All statements, other than statements of historical fact, included herein including, without limitation, statements regarding future capital expenditures, anticipated content, commencement, and cost of exploration programs in respect of the Company's projects and mineral properties, anticipated exploration program results from exploration activities, resources and/or reserves on the Company's projects and mineral properties, and the anticipated business plans and timing of future activities of the Company, are forward-looking information. Although the Company believes that such statements are reasonable, it can give no assurance that such expectations will prove to be correct. Often, but not always, forward-looking information can be identified by words such as "pro forma", "plans", "expects", "will", "may", "should", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", "believes", "potential" or variations of such words including negative variations thereof, and phrases that refer to certain actions, events or results that may, could, would, might or will occur or be taken or achieved. In stating the forward-looking information in this news release, the Company has applied several material assumptions, including without limitation, that market fundamentals will result in sustained precious and base metals demand and prices, the receipt of any necessary permits, licenses and regulatory approvals in connection with the future exploration of the Company's properties, the availability of financing on suitable terms, and the Company's ability to comply with environmental, health and safety laws.

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Readers are cautioned not to place undue reliance on forward-looking information. The Company undertakes no obligation to update any of the forward-looking information in this news release except as otherwise required by law.

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