

ASX Announcement

19 April 2024

Chubb North drilling confirm pegmatites are part of an evolving LCT system, providing geochemical vectors.

HIGHLIGHTS

- Specialist geochemical interpretation of assay results from the first holes drilled into Chubb North pegmatites support an evolving Lithium Caesium Tantalum (LCT) pegmatite system.
- Analysis provides context for planning further drilling, south of the initial holes.
- Additional pegmatite outcrops were identified at several locations between Chubb North and the spodumene and caesium bearing dykes at Chubb Central.
- Aeromagnetic data is being acquired and a structural map will be generated, to provide better geological control of areas under glacial till cover.

Burley Minerals Limited (ASX: BUR, "Burley" or "the Company") recently completed four stratigraphic drill holes at its Chubb North Prospect, located near Val d'Or, Quebec (see Figures 3, 4 and 6). Geochemical results have been reviewed by the Company's consulting geochemist and recommendations made for the next phase of exploration.

Earlier geological mapping and rock chip sampling by Burley had identified pegmatites at Chubb North, which is between 3 and 4km north of the spodumene-bearing Chubb Central pegmatite dyke swarm. Feldspar geochemistry indicated that these pegmatites were likely to be of the lithium-caesium-tantalum (LCT) family and therefore prospective for lithium minerals.

Four diamond drill holes, (CLP-047 to CLP-050, refer Table 1) were completed in December 2023. All encountered granitic pegmatites which were sampled and detailed geochemical data with geological intervals were assayed by a commercial laboratory for a suite of lithium-related trace elements for the review reported here.

Burley's geochemical consultant, Dr Nigel Brand of Geochemical Services Pty Ltd, provided a brief interpretation of the commercial laboratory assay results, including:

- Majority of drill data lies within the 'fertile pegmatite' field of Cerny and Ercit, (2005).
- Background Li values suggest that the granitic pegmatites intersected in these drill holes are more likely related to the parent source of other LCT pegmatites in the area.
- Assuming a pluton-related model (e.g. Trueman and Cerný (1982)), geochemical trends suggest that
 the more fractionated holes are the most southerly, being holes CLP-23-047 and CLP-23-048. While
 all holes are too close, holes CLP-23-049 and CLP-23-050 are interpreted to be the closest to the
 parent pluton.

Dr Brand also recommended that exploration mapping, sampling and, when warranted, further drilling, should focus on areas south of the completed Chubb North drilling.

Burley Minerals' Managing Director and CEO, Stewart McCallion commented:

"The review of the litho-geochemistry data from whole-rock samples and point feldspar data by Burley's specialist geochemist reinforces the prospectivity of the northern Chubb area.

ASX: BUR

"Additional pegmatite outcrops were identified at several locations between Chubb North and the spodumene bearing dykes at Chubb Central, and these will be one focus of exploration initiatives planned for 2024.

"In the meantime, aeromagnetic data is being acquired and a structural map will be generated, to provide better geological control of areas under glacial till cover that covers the vast majority of the Chubb Lithium Project."

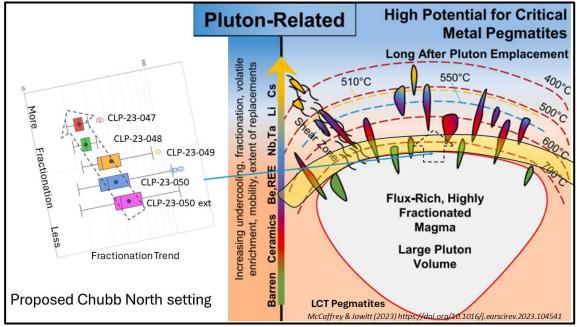


Figure 1: Simple pegmatite fractionation summary plot and a conceptual diagram of the Pluton-related LCT Pegmatite genesis model. (McCaffrey & Jowitt, (2023) after Trueman and Cerný (1982))

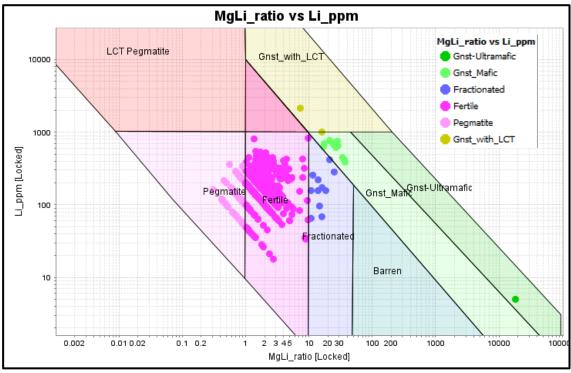


Figure 1: Pegmatite Fractionation Plot shows that some pegmatite samples are plotting within the Fertile Pegmatite field. (Cerný and Ercit, (2005))

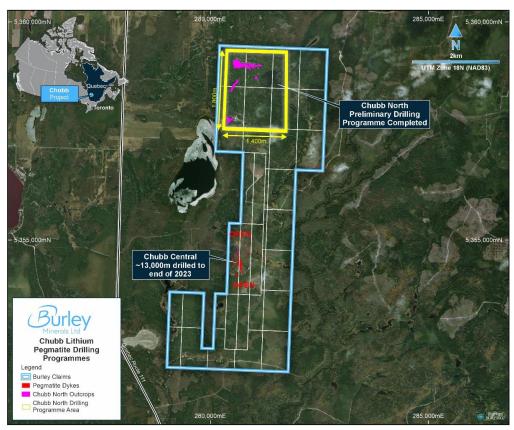


Figure 2: Chubb Lithium Project area showing Chubb North area 4kms north of the spodumene and caesium bearing dykes at Chubb Central.

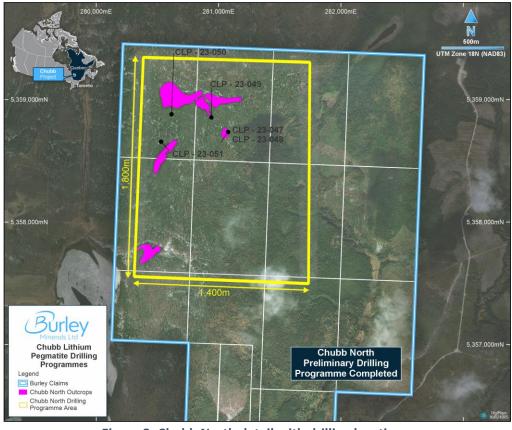


Figure 3: Chubb North detail with drilling locations.

About Burley Minerals Limited

Burley Minerals Ltd (ASX: BUR) is an ASX-listed, Perth-based minerals explorer with iron ore and lithium projects, located within the World-Class Tier-1 provinces of Western Australia and the Canadian provinces of Québec and Manitoba.

Burley also has the Broad Flat Well and Cane Bore Prospect (exploration license application) in the world class Hamersley Iron Ore Province in Western Australia. The Cane Bore Prospect has 32kms of remnant outcropping Channel Iron Deposit (CID) mineralisation which on average is 400m wide and up to 20m above the surrounding ground. Broad Flat Well up to 18kms of sub-outcropping CID mineralisation has been identified in three deposits, with thicknesses between 2 and 10 m evident in breakaways with rock chip assays averaging 56.3% Fe.

Figure 5 – Burley's iron ore assets and location to existing deposits and infrastructure. Broad Flat Well Location Plan showing only 115km by sealed highway from Karratha and Cane Bore only 90 kms by sealed highway to Onslow.

In Western Australia, Burley also owns a 70% interest in the Yerecoin Iron Ore Project, located approximately 120km northeast of Perth, and which has a JORC 2012 compliant Inferred and Indicated Mineral Resource of 246.7Mt capable of producing a concentrate at >68% Fe¹.

Burley

Burley acquired 100% ownership of the Chubb Lithium Project in Québec, Canada, in February 2023. The Chubb Lithium Project is located 25 km north of the mining community of Val d'Or in the heart of the world-class lithium province of Québec, Canada with a total area of 1,509 hectares. The Chubb Project is centred within the Manneville Deformation Corridor, which hosts Canada's only operating lithium mine, the North America Lithium Operation (NAL). The NAL is owned by Sayona Mining Ltd (ASX: SYA) and Piedmont Lithium Inc, with Mineral Resources of 58Mt at 1.23% Li₂O² reported, plus emerging projects including the Authier Lithium Project, with resources of 17Mt at 1.01% Li₂O reported³. The recommissioned NAL plant is located 10km north-east of the Chubb Lithium Project, with first production having commenced in the March 2023 Quarter⁴.

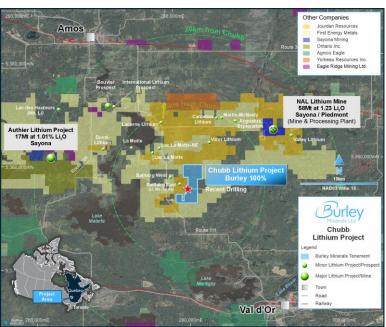


Figure 4. Location map of the Chubb Project near Val d'Or, southern Québec and the NAL Operation, other deposits and surrounding infrastructure.

¹ Refer to Burley Minerals Ltd Prospectus dated 27 May 2021 Section 10 for the Independent Technical Assessment Report.

² Refer to Sayona Mining's ASX Release dated 14 April 2023

³ Refer to Sayona Mining's ASX Release dated 14 April 2023.

⁴ Refer to Sayona Mining's ASX Release dated 28 April 2023.

More recently, Burley announced the acquisition of approximately 1,100 km² in Manitoba, Canada⁵ which includes five lithium projects and applications for a two other projects within the same greenstone belt as other world-class lithium deposits.

This announcement has been authorised for release by the Board of Directors.

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 $^{^{\}rm 5}$ Refer to Burley Mineral's ASX announcement dated 29 December 2023 and 31 January 2024.

Table 1: Diamond Drilling Collar Summary

Hole ID	Year	East (m)	North (m)	(RL (m)	Azimuth (°)	Dip (°)	Length (m)
CLP-23-047	2023	281,077	5,358,726	370	225	45.0	120
CLP-23-048	2023	281,077	5,358,726	370	225	60.0	138
CLP-23-049	2023	280,933	5,358,941	370	0	45.0	201
CLP-23-050	2024	280,654	5,358,953	353	360	45.0	647

NOTES: Survey grid: NAD83-18 Collar location determined using handheld GPS. Accuracy commonly +/- 3m No significant results were identified for the above holes above 0.5% Li₂O.

Competent Person's Statement

The information in this announcement that relates to lithium and LCT pegmatite exploration results is based on and fairly represents information and supporting documentation supplied to Mr David Crook, who is a member of The Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). Mr Crook is a consultant to Burley Minerals and is a non-executive Director of the Company. Mr Crook has sufficient experience relevant to the style of mineralisation under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Crook consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

The Yerecoin Main and South Mineral Resource Estimate was reported in 2014 under the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The Mineral Resource Estimate was detailed in refer to Prospectus dated 27 May 2021 Section 10 for the Independent Technical Assessment Report. Burley confirms that it is not aware of any new information or data that materially affects the information included in this announcement regarding the mineral resources and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Caution Regarding Forward-Looking Information

This announcement may include forward-looking statements regarding Burley Mineral Limited. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Burley. Actual values, results or events may be materially different to those expressed or implied in this document. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this document speak only at the date of issue of this ASX Release. Subject to any continuing obligations under applicable law, Burley does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions, or circumstances on which any such forward looking statement is based.



JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
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Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	NQ core samples from holes drilled from surface.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	 QAQC comprising suitable standards (Certified Reference Material "CRM") and sourced blank material were inserted at nominal rates inside the sample sequence. The standards reported within acceptable limits. Samples are considered 'fit for purpose', being to detect anomalous metal elements. Half core samples dictated by geology vary in length and weight up to a maximum sample length of 1.2m.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	 Standard surface diamond drilling to recover NQ size core. Core was orientated and surveyed downhole at 50m intervals.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	 Diamond core recovery was measured for each run and calculated as a percentage of the drilled interval. Core recovery was generally high with fresh rock from near surface Because the sample recoveries are assumed to be high, any possible relationship between sample recovery and grade has not been investigated.

Criteria	JORC Code explanation	Commentary
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	 All core was geologically logged for lithology and mineralisation which has been recorded in the geology table of the drillhole database. Geological logging is of qualitive and descriptive in nature. The entire length of each hole has been geologically logged and photographed.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	 Core was cut in half by diamond saw with one half retained as reference and one half sent for assay. All core processing was carried out by Service provider, MNG and stored in their facility. All samples were submitted to SGS and prepared according to the PREP-89 protocol which involves, core to be crushed to 75% passing 2mm, riffle split off 250g, then pulverized and split to better than 85% passing 75 microns. The Company recognises that pulverising using a chromium-steel bowl may introduce Fe and Cr as a contaminant. QA/QC programme has CRMs and blanks inserted into the analytical sequence at the rate of 5 per hundred.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	 All samples were submitted for a 56-element suite to SGS laboratory having both ISO9001:2008 and ISO/IEC 17025 accreditation. SGS protocol GE_ICM91A50, peroxide fusion with ICP OES/MS finish, was used for assaying core and is the preferred technique for lithium and associated elements analysis in Pegmatites, as such it is considered fit for purpose. Over limit Si values were obtained using XRF72 borate fusion. Internal SGS QAQC passed internal protocol and inserted standards were generally within 1STD. All blanks remained under detection limits confirming no contamination was introduced through the laboratory process. Handheld XRF results were collected for internal use and are not reported herein. No geophysical measurements were made.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.	 Verification of the exploration processes was undertaken by David Crook, a non-executive director of the Company and the Competent Person for this report. No holes were twinned at this stage of drilling. There were no other adjustments made to the data, other than to convert Li to Li₂O

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	using a factor of 2.1527.
	Discuss any adjustment to assay data.	
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used.	 The hole collars were positioned using handheld GPS Each drillhole has been marked in the field by a wood pole and a follow up survey is intended using an RTK system. The grid system used is UTM NAD83 (zone 18)
	Quality and adequacy of topographic control.	
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	 Drill holes have been located at individual sites. Sample spacing is appropriate for the intended study. No resource estimation has been made. No sample compositing was applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	 Drill lines are orientated approximately at right angles to the current interpreted strike of the drill target. No bias is considered to have been introduced by the existing sampling orientation
Sample security	The measures taken to ensure sample security.	 Samples were bagged and sealed on site, sample bags were grouped by batched of 15-20 and put into shipping bags that were again sealed and transported directly to SGS lab by MNG technicians.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Sampling and assaying techniques are considered to be industry standard. At this stage of exploration, no external audits or reviews have been undertaken.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The geochemical observations reported within this announcement are from the Chubb Project, which is 100% owned by Lithium Chubb Inc. a wholly-owned subsidiary of Burley Minerals Ltd
status	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	The Chubb Project is made up of 35 claims in one block totaling 1,509ha, located in NTS 32c05, in La Corne and Vassan townships, 28km NNW of Val-d'Or
		There is a 2.5% Net Smelter Royalty over the Project to the Project vendor.
		First nation title claims sit with the Abitibi Winni First Nation Council.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	43 holes for 5,722m have previously been completed at the Chubb Central Prospect. No previous drilling has been completed at Chubb North. All material data from within the Project has been previously reported.
Geology	Deposit type, geological setting and style of mineralisation.	Pegmatites of the Chubb Project are of spodumene bearing quartz-albite LCT (Lithium Caesium Tantalum) pegmatite family of rocks. The pegmatite dykes have intruded into a suite of metamorphosed mafic and felsic rocks.
		Outcropping pegmatites have been identified at the Chubb North prospect which show fertility indicators consistent with LCT (Lithium Cesium Tantalum) pegmatite family of rocks.
Drill hole	A summary of all information material to the understanding of the exploration results	Refer to Table 1 of this announcement for collar details. No assays are presented in this
Information	including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	announcement.
	dip and azimuth of the hole	
	down hole length and interception depth	
	hole length. If the exclusion of this information is justified on the basis that the information is not	
	Material and this exclusion does not detract from the understanding of the report, the	
	Competent Person should clearly explain why this is the case.	

Criteria	JORC Code explanation	Commentary
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	Assay results are as received from SGS laboratories except Li₂O, where a stoichiometric conversion factor of 2.1527 has been applied to convert Li to Li₂O No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	No assay results are reported.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to figures in this report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No assay results have reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Meaningful geochemical observations have been reported graphically.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Work that is currently underway or remains outstanding includes: Field mapping of the Chubb tenure. An aeromagnetic survey is being planned. Follow up drilling if remaining assay results are encouraging.