

22 February 2024

## EXPLORATION AND ADVANCEMENT UPDATE BYNOE LITHIUM PROJECT

Lithium Plus Minerals Limited (ASX: LPM) (**Lithium Plus** or the **Company**) is pleased to provide an exploration and advancement update for the 100% owned Bynoe Lithium Project near Darwin in the Northern Territory, Australia.

### Exploration highlights to date

- + **Lei Deposit maiden Mineral Resource Estimate (MRE) declared (December 2023):**
  - **4.1Mt @ 1.43% Li<sub>2</sub>O** at 0.5% cutoff including Indicated and Inferred material.<sup>1</sup>
  - Primary Lei pegmatite contributed solely to current MRE.
  - Secondary Lei pegmatite not currently included in Resource modelling.
- + **Initial drilling and exploration success at Perseverance, Kings Landing Area:**
  - Total of fourteen (14) reverse circulation (**RC**) and/or diamond (**DD**) drill holes completed at Perseverance to date, with spodumene mineralisation confirmed in near-surface, fresh pegmatite.
  - Additional RC and DD tail drilling to test the shallow strike length and down plunge extensions of the Perseverance pegmatite body was postponed over the wet-season.
- + **Large scale soil geochemistry program confirmed the presence of numerous untested pegmatite systems:**
  - Over 4,000 soil samples analysed in conjunction with existing geological mapping and structural analysis.
  - More than fifteen (15) drill ready pegmatite targets defined based on outcropping/sub cropping pegmatites and/or elevated and anomalous lithium with associated pathfinder elements.

### CY2024 exploration initiatives

- + Exploration expenditure to be **focused on further discovery for prudent management of existing strong A\$9.4 million cash position (at 31 December 2023).**
- + **Drilling focus will shift to prospect areas with significant discovery potential beyond Lei. RC drilling scheduled immediately after the wet season.**

1. Refer to ASX releases dated 19 December 2023. Lithium Plus is not aware of any new information or data that materially affects the information included in this release, and the Company confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the estimate in these releases continue to apply and have not materially changed.

- + **Up to four (4) diamond tail and diamond tail extension holes** scheduled to be completed at the Perseverance and other Prospects in H2 of 2024, in conjunction with the results from the first pass of the RC drilling program.

### Lei Deposit advancement

- + **Capital efficient, early-stage feasibility work on Lei Deposit advancement underway** with MiningOne engaged for mine design, site infrastructure and cost evaluation.
- + **Preliminary results from metallurgical samples analysed in China suggest favourable processing characteristics in line with expectations**, indicating a saleable Li<sub>2</sub>O concentrate can be produced from the Lei Deposit.
- + **Expanded metallurgy program commenced for further flowsheet refinement.**
- + **Baseline studies for a future environmental referral in advanced stages**, with a June 2024 submission targeted.

### Commenting on the Bynoe Lithium Project, Executive Chairman, Dr Bin Guo, said:

*"The declaration of a maiden Mineral Resource Estimate (MRE) at Lei at the end of 2023 signified the culmination of our initial targeted exploration activities post listing on the ASX. We successfully delivered on our commitment to shareholders and have set the foundation for a potential multi-deposit project at Bynoe.*

*We are confident in the potential within this region, and our belief that the Lei Deposit represents the first of numerous similar style lithium deposits capable of being delineated across our richly fertile pegmatite fields.*

*Drilling for the Lei Deposit MRE is now behind us, allowing us to prudently redeploy our budget capacity. Moving into CY24, our exploration focus shifts to our set of high-priority regional pegmatite occurrences. Exploration expenditure for the current year will be focused on resource discovery and we intend to complete the scheduled drilling at Jenny's before extending more broadly within the Kings Landing Area and beyond.*

*In parallel, we have commenced capital-efficient, early-stage feasibility work on the Lei Deposit. This work includes the initiation of mine design, site infrastructure layout planning, and early cost evaluation. Metallurgical testing continues, with results from samples analysed in China indicating favourable processing characteristics in line with expectations. A further 105 samples have been shipped to the Australian-based metallurgical and analytical laboratory Nagrom for analysis. Baseline studies for an environmental referral are in advanced stages, encompassing surface and groundwater studies, flora and fauna assessments, stakeholder engagement, and waste rock characterisation. We anticipate submitting an environmental referral by June 2024, aligning with our timeline objectives to adhere to current approvals processes.*

*We are very excited for the coming year, with a steady flow of news expected and active exploration to come".*

## LEI DEPOSIT MINERAL RESOURCE ESTIMATE

The MRE summary for the Lei Deposit is outlined in Table 1. Resources have been estimated as 4.09Mt @ 1.43% Li<sub>2</sub>O at 0.5% cutoff including Indicated and Inferred material, with measured material not classified at this time<sup>1</sup>.

Table 1: Mineral Resource Summary (at 0.5% Li<sub>2</sub>O cutoff)

Resource Category	Million Tonnes	Li <sub>2</sub> O (%)	Contained Li <sub>2</sub> O (Kt)
Indicated	0.42	1.22	5
Inferred	3.67	1.45	53
<b>Total</b>	<b>4.09</b>	<b>1.43</b>	<b>58</b>

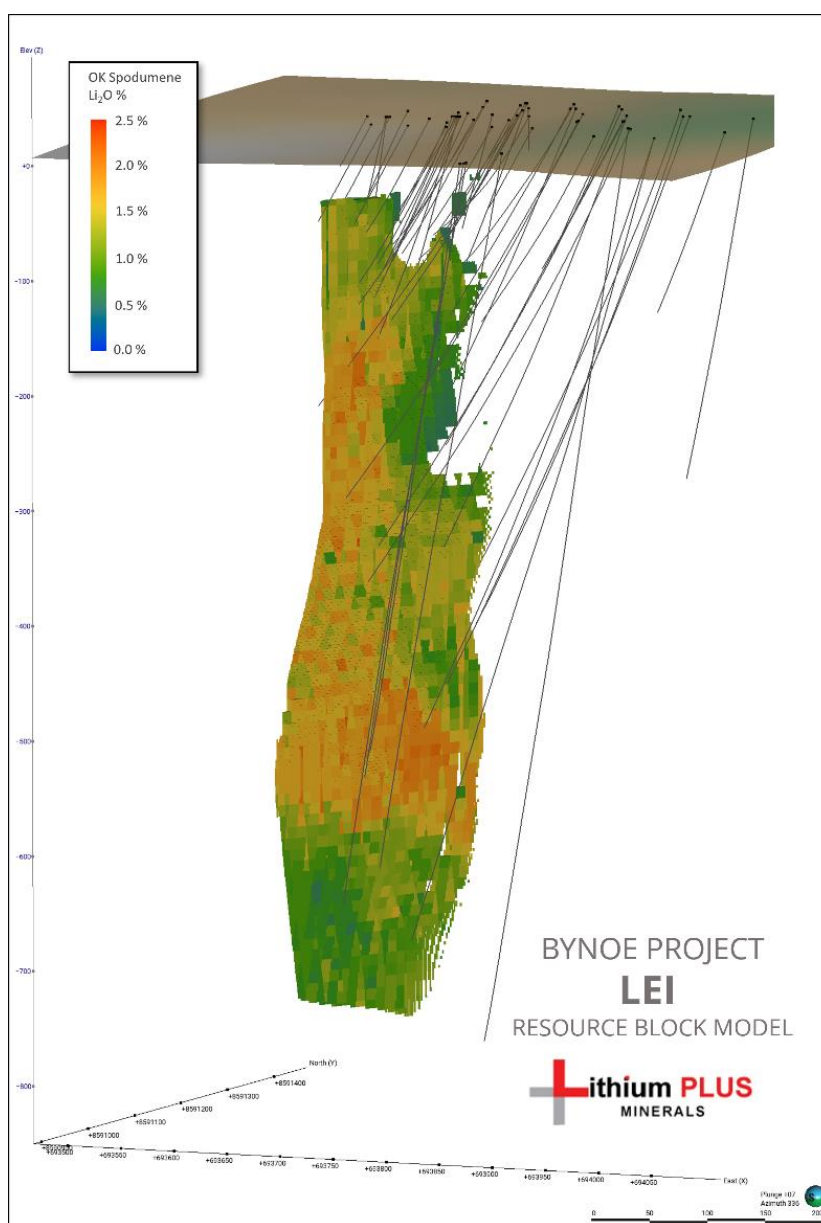


Figure 1: Lithium Grade (Li<sub>2</sub>O%) distribution across the Lei Resource

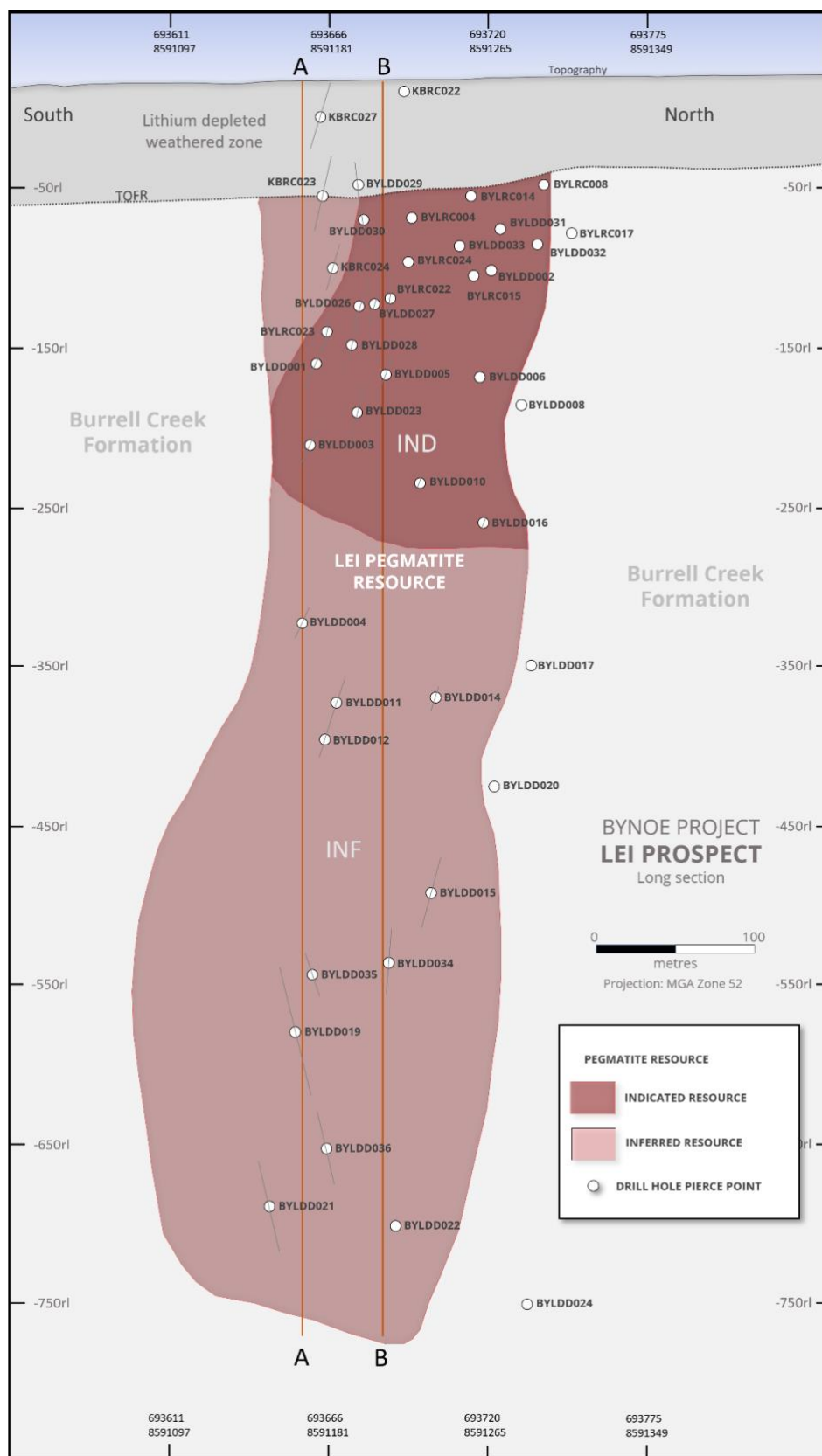


Figure 2: Long Section through the Lei Resource Model showing drill pierce points.

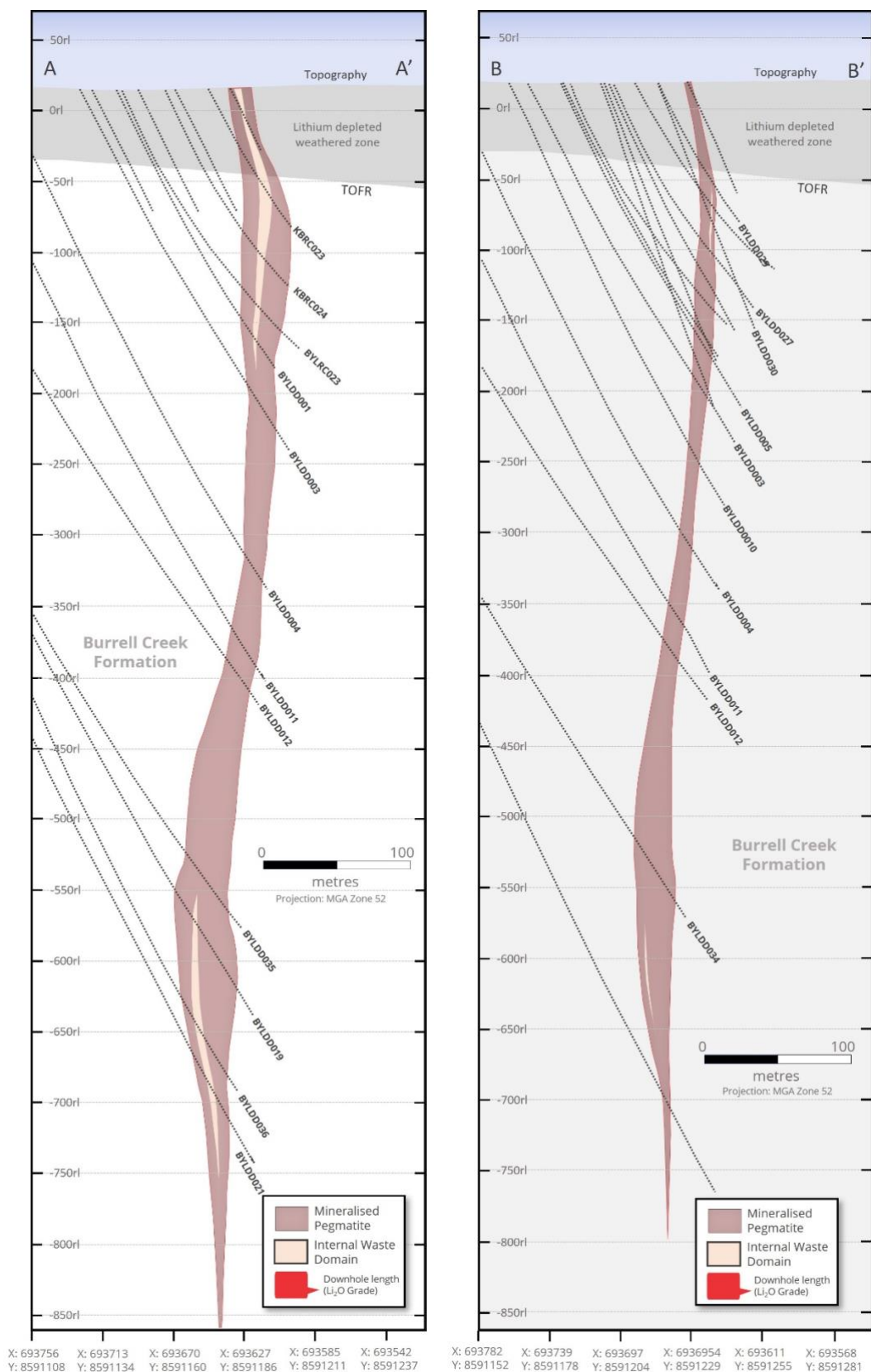


Figure 3: Cross sections through the Lei deposit showing drill spacing and intersections.

## PERSEVERANCE PROSPECT

The Perseverance pegmatite is located within an old prospect area comprising several small pits and a shallow shaft with no historical record of Sn-Ta production. The Prospect is exposed in a series of trenches exposing a 100m long, north-north-east striking pegmatite up to 10m wide. Additionally, a 100m long, 65m wide podiform pegmatite body is exposed to the south of the main body.

A total of fourteen (14) RC/DD drill holes have been completed at Perseverance to date, with the latest round of drilling comprising six (6) RC holes for approximately 900m. The program was designed to follow up encouraging results from earlier drilling in 2023 which confirmed spodumene mineralisation in fresh pegmatite, including:

- **19m @ 1.58% Li<sub>2</sub>O** from 148m (BYPRC012), including:
  - 4m at 2.62% Li<sub>2</sub>O.

The shallow drill program extended mineralisation at surface and between existing holes aiding definition of the plunge and extent of the existing high-grade zone.

Assay results from an additional two (2) Perseverance Prospect holes intersected significant spodumene mineralisation, including:

- **7m at 0.86% Li<sub>2</sub>O** from 135m (BYPRC027) in a broader zone of 12m @ 0.57% Li<sub>2</sub>O; and
- **7m at 1.22% Li<sub>2</sub>O** from 110m (BYPRC031) within a broader zone of 12m @ 0.79% Li<sub>2</sub>O.

Four (4) RC pre-collar holes (BYPRC010, BYPRC011, BYPRC029 and BYRC032) will be completed with diamond drill hole tails (refer Figure 4). These four holes have been designed to intersect down plunge under the best intersection to date (BYPRC012). The current drilling favours an interpretation of a steep plunge to the south that increases in width and grade at depth.



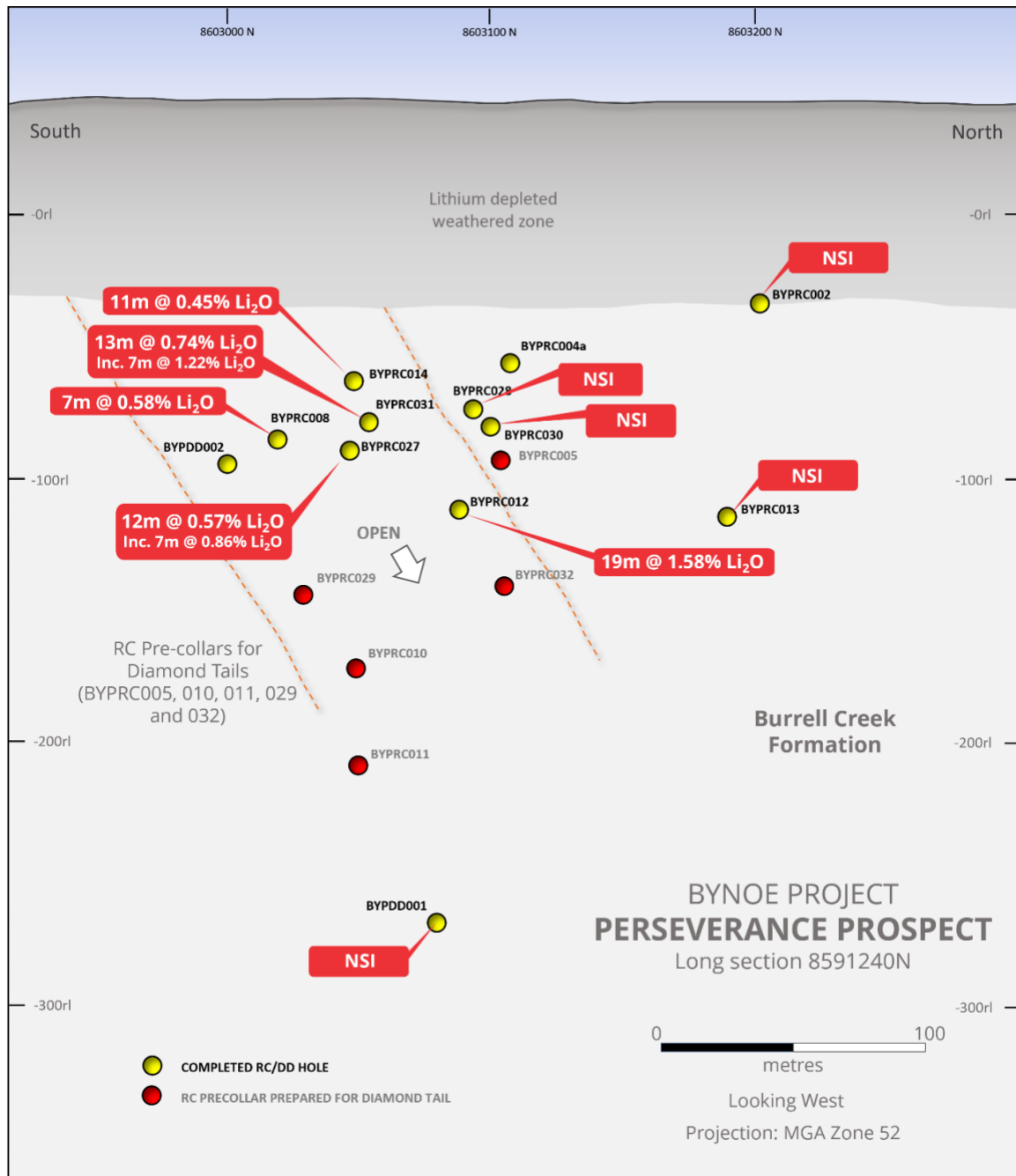


Figure 4: North-South long section with drill hole pierce points and grade intersections in RC drill chips.

## JENNY'S PROSPECT

The Jenny's pegmatite is mapped as a broad unconformable and steeply dipping pegmatite that strikes NNE over 500 meters. The weathered pegmatite (kaolinized quartz, mica, Kaolinite) is exposed in a series of broad costeans and appears to split into two entities in the centre before coalescing again to the north and south, with a maximum mapped width of approximately 70m.

A nine (9) hole 1,823m RC and DD drilling program testing the shallow strike length of the pegmatite body commenced late in the 2023 field season and will recommence when access allows in early 2024.

## NUMEROUS UNTESTED PEGMATITE SYSTEMS

The Bynoe region is home to hundreds of historically known pegmatites which typically occur in clustered linear swarms ranging in surface area from a few square meters up to hundreds of square meters. In the region, pegmatites are generally poorly exposed at surface due to subdued relief, extensive weathering profiles and thick vegetation. Better exposures of pegmatite are often found in historical artisanal workings, and exploration costeans observed as highly weathered clay-quartz (smectite-kaolinite) saprolite. More often, the surficial expression of the known pegmatites is typically defined by residual 'scattered' pegmatite float comprising resistant quartz and mica. The presence of lithium minerals is absent (removed, if present, by the weathering process), and outcrops are rare.

To rapidly and cost effectively screen broad prospect areas and identify prospective pegmatite targets, Lithium Plus deployed a program of broad systematic soil geochemistry grids along with reconnaissance mapping of pegmatite float trails.

The program was conducted through the second half of 2022 with over 3,700 soil geochemistry samples taken across EL 31091, EL 31092 and EL 31133. Samples were initially taken on east west traverse lines spaced 200m apart with samples taken at 50m spacing along the traverse lines. Infill sampling at a 50m square grid spacing was conducted on high priority areas to refine the broader soil anomalies (refer ASX announcement, 27 April 2023).

Calibration of the soil geochemical results with known pegmatite occurrences within the survey area (e.g. Lei) demonstrate that high concentrations of Li, Cs, Ta, Rb, Be and Sn (the 'pegmatite index'), are indicative of lithium-enriched pegmatites.

As anticipated, the survey program was highly successful in defining numerous pegmatite targets of elevated and anomalous lithium with associated pathfinder elements (refer Figure 5).

More than fifteen (15) drill ready pegmatite targets defined based on elevated and anomalous lithium with associated pathfinder elements, and outcropping to sub-cropping pegmatite.



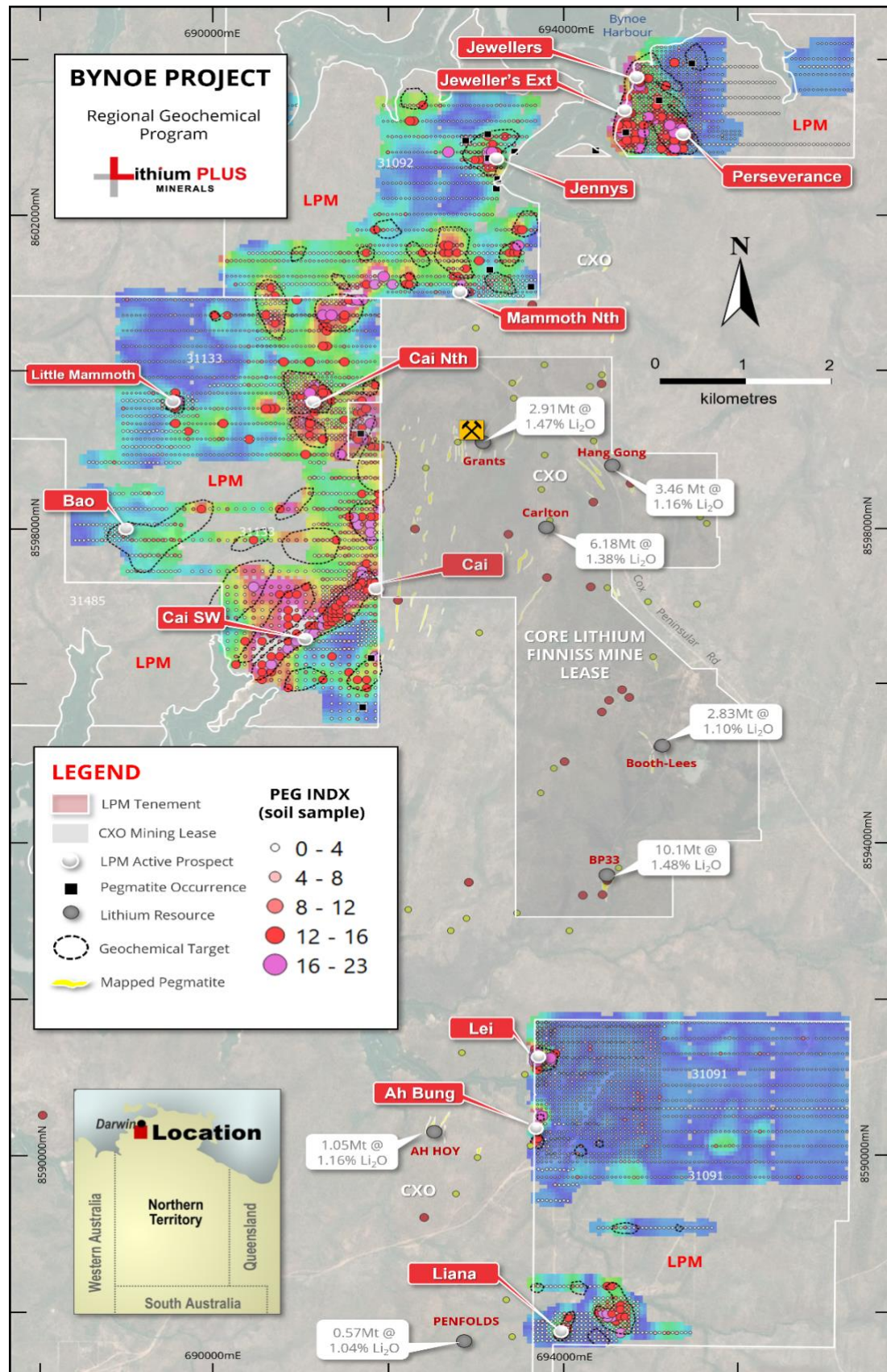


Figure 5: Soil Anomalies across the Bynoe tenements.

## CY2024 EXPLORATION INITIATIVES

With spodumene price's dramatic drop over the past year, the Company has pivoted its exploration and advancement strategy to maximise its current strong cash position. Exploration expenditure will be reduced compared to previous years and drilling will focus on prospect areas with significant discovery potential beyond Lei

### Perseverance Prospect

Up to four (4) priority diamond tail and diamond tail extension holes are scheduled to be completed at the Perseverance Prospect in Q1/Q2 2024 (refer ASX announcement, 14 December 2023). The current drilling favours an interpretation of a steep plunge to the south that increases in width and grade at depth.

### Regional drill targets, including the Broader Kings Landing area.

During the upcoming field season, LPM plan to implement significant RAB and RC drilling programs across the broader Bynoe Project area to test a number of drill-ready targets that have yet to be tested with reconnaissance exploration drilling. Focus areas will be Kings Landing, Cai and south of the Lei Deposit where multiple pegmatite occurrences are co-incident with strong geochemical indicators.

The purpose of these programs will be to deliver multiple new shallow mineralised pegmatite discoveries to complement the existing Lei resource.

## LEI DEPOSIT ADVANCEMENT

Leading technical consultants MiningOne have commenced capital-efficient, early-stage feasibility work on advancing the Lei Deposit. The work is set to continue through the first half of 2024 and will encompass mine design, site infrastructure, and early cost evaluation.

Early metallurgical test work, conducted by China-based Yibin Tianyi Lithium Industry Co., was designed to assess the amenability of the Lei pegmatite ore as a direct DSO feed. The results returned positive outcomes, aligning with industry expectations. These results will be utilised to inform potential downstream partners. Additionally, the early test work was intended to provide insights into potential development pathways and to guide, based on positive feedback, additional metallurgical optimisation programs.

Building on the positive results from the preliminary test work outcomes, a broader metallurgical optimisation program has been launched at the Perth-based metallurgical laboratory, NAGROM. This program aims to inform ongoing internal feasibility studies and to provide an independent basis for future potential offtake discussions. In total, 105 metallurgical samples from the Lei Deposit have been shipped to NAGROM, with detailed analysis expected by end Q2 2024.

This test work aims to inform ongoing internal feasibility studies and provide the independent basis for future offtake discussions.

The Company has also commenced environment baseline studies (surface and groundwater studies, flora and fauna studies, stakeholder engagement, and geochemical characterisation) in preparation for environmental referral submissions later this year.

## About Lithium Plus Minerals

Lithium Plus Minerals Limited (ASX: LPM) is an Australian Lithium exploration company with 22 tenements in the Northern Territory grouped into the following projects:

### Bynoe Lithium Project

Situated on the Cox Peninsula, 45 km south of Darwin, on the northern end of the Litchfield Pegmatite Belt, with 11 granted tenements covering 297 km<sup>2</sup>. Geologically centred around the Bynoe Pegmatite Field, the tenements share a border with Core Lithium's Finiss mine development. Significant lithium mineralisation was discovered at Lei in 2017 within the north-northeast trending spodumene bearing pegmatites. Current drill ready targets are Lei, SW Cai, Cai and Perseverance.

### Wingate Lithium Project

Located 150km south of Darwin, this single tenement (EL31132) covers the Wingate Mountains Pegmatite District, the southern part of the Litchfield Pegmatite Belt. It contains the known presence of pegmatites with little exploration and minor historical production of tin. Historical gold workings (Fletcher's Gully) are present.

### Arunta Lithium Projects

#### Barrow Creek

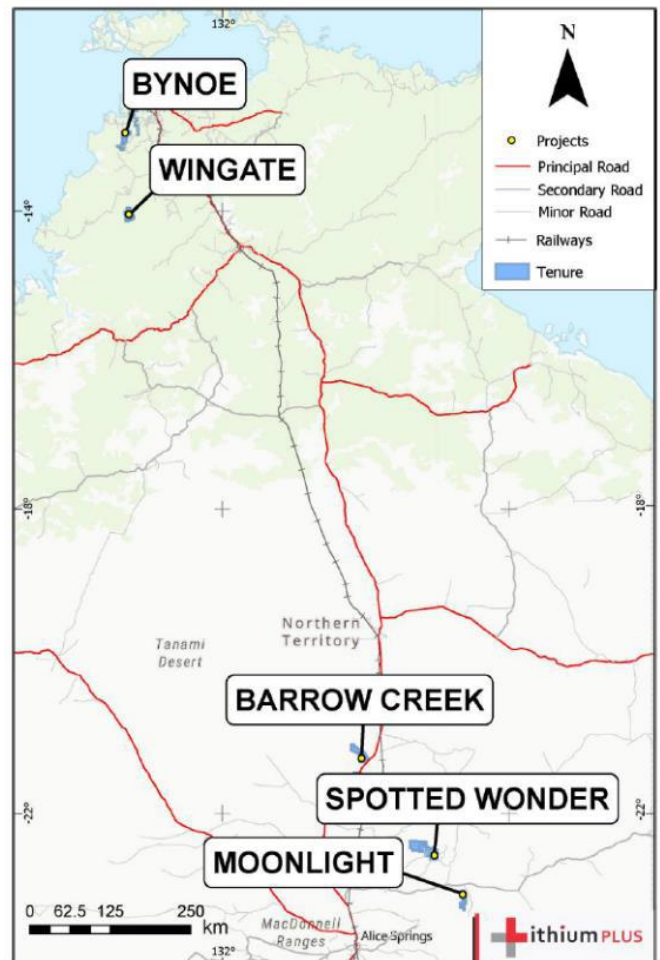
Located in the Northern Arunta pegmatite province, 300km north of Alice Springs. Historic tin and tantalum production and the presence of spodumene in nearby Anningie Pegmatite field suggest lithium potential.

#### Spotted Wonder

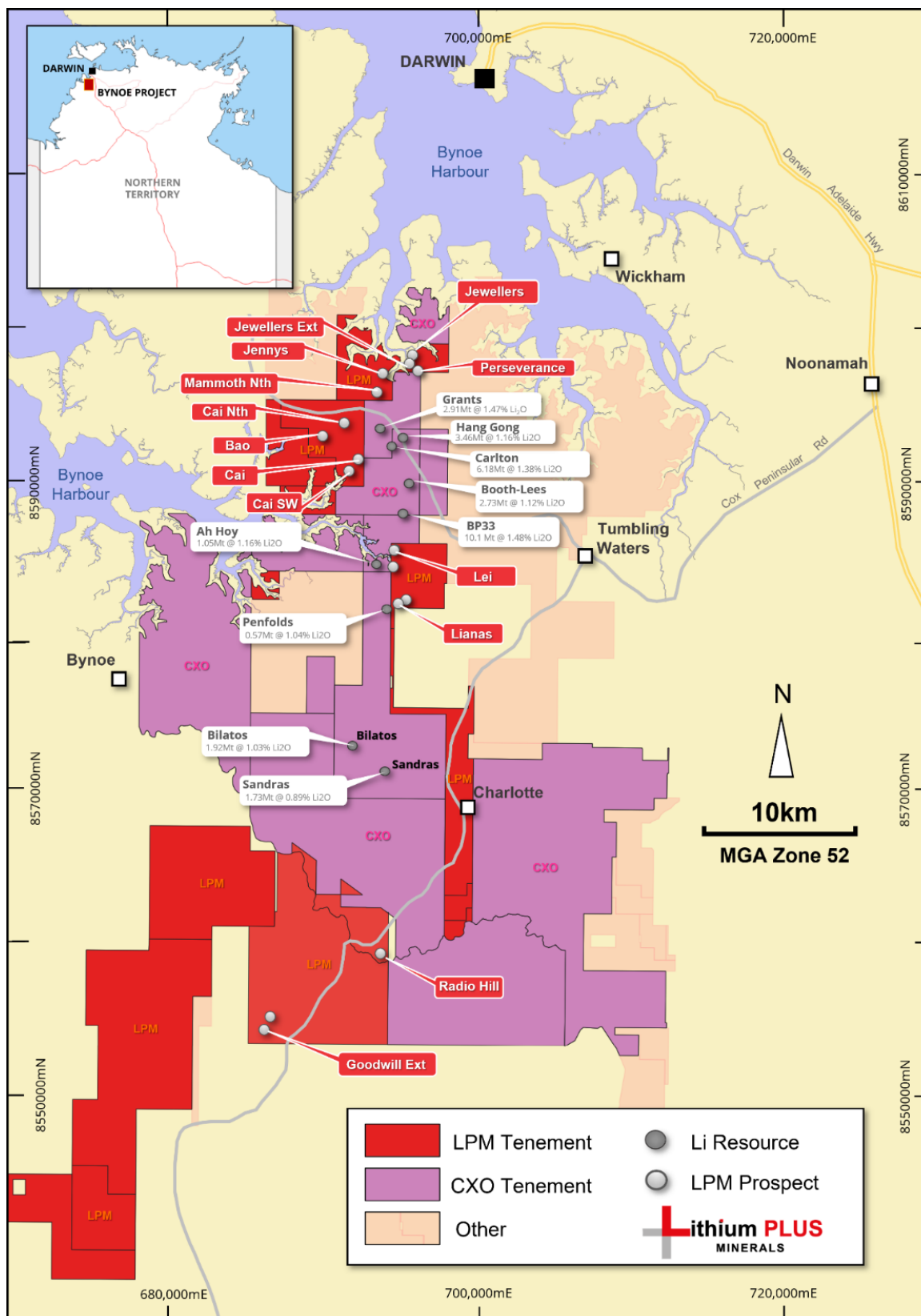
Located approx. 200km north-north-east of Alice Springs with proven lithium mineralisation, with amblygonite present in the Delmore Pegmatite.

#### Moonlight

Located within the Harts Range Pegmatite Field, approx. 200km north-east of Alice Springs. Presence of pegmatites containing elbaite, indicative of lithium enrichment.







Bynoe Project Location map and pegmatite prospects.