

16 October 2024

EXCELLENT OUTCOMES FROM METALLURGICAL TEST WORK ON LEI DEPOSIT ORE

RESULTS HIGHLIGHT DEVELOPMENT OPTIONALITY FOR COMMERCIALISATION OF THE LEI PROJECT

Lithium Plus Minerals Limited (ASX: LPM) (**LPM, Lithium Plus** or the **Company**) is pleased to announce further outcomes from the ongoing metallurgical test work programme on samples from Lei deposit ore at its 100% owned Bynoe Lithium Project (**Lei Project**). A sighter test programme conducted by leading independent metallurgical laboratory Nagrom (**Nagrom**) confirmed the potential for effective separation of spodumene from Lei deposit ore using multiple processing routes. The sighter programme was conducted in parallel with the ore sorting trials announced on 13 September 2024 and forms part of a broader pre-development work plan aimed at informing future Feasibility Studies (**FS**) at the Lei Project.

PROGRAMME OUTCOMES

- + Lei deposit ore (primary coarse spodumene) has demonstrated a high amenability to beneficiation through multiple processing routes, offering maximum optionality for future commercialisation.
- + Results provide off-take partners with enhanced confidence in ore quality, validating the planned near-term Direct Shipping Ore (**DSO**) development plan for the Lei deposit while unlocking options for alternative processing routes for the broader Bynoe pegmatite field.
- + A whole-of-ore dense media separation (**DMS**) test on a run-of-mine Lei ore sample achieved a **69.6% recovery to a concentrate grading 6.12% Li₂O**.
- + The same DMS test on a high-grade sample achieved a **76.9% recovery to a concentrate grading 6.28% Li₂O**.
- + A whole-of-ore flotation test on a high-grade sample achieved a **79.5% recovery to a concentrate grading 6.05% Li₂O**.
- + A combination of DMS plus fines and middlings flotation using a high-grade ore sample achieved an **85.3% recovery to a concentrate grading 6.12% Li₂O**.
- + All tests successfully produced concentrates with low levels of gangue material (Fe₂O₃) an important quality in the downstream production of battery-grade lithium products.
- + Significant optimisation opportunities remain for further testing to refine and enhance any future process flow sheet design.

BACKGROUND

Earlier this year LPM entered into a non-binding Memorandum of Understanding (**MOU**) regarding a spodumene offtake agreement with Canmax Technologies Co., Ltd (XSHE: 300390) (**Canmax**) in the form of DSO or concentrate (refer to ASX announcement 5 June 2024). The MoU encompasses 50% of all DSO and spodumene concentrate produced from the Lei Project, with an option for Canmax to purchase additional product, subject to availability. Pricing will be based on a percentage of Canmax's profit from lithium hydroxide/carbonate sales, taking into account mining, transportation, and processing costs at Lei. Initially, Lei's product will be DSO (Stage 1), with the potential for spodumene concentrate (Stage 2). Canmax has also agreed to assist with project financing arrangements for the Lei Project.

In September 2024, Lithium Plus announced positive results from initial ore sorting trials, undertaken as part of a broader metallurgical test work programme on Lei deposit ore (refer to ASX announcement 13 September 2024). The trials utilised ultra-violet laser sorting technology, which returned significant uplifts in lithium head grades while enabling a meaningful reduction in ore mass. These outcomes complement the ongoing testing programme, with UV sorting offering potential as a precursor stage to further processing.

In the recovery of lithium from spodumene ore, it is common practice to use a combination of DMS and flotation to optimise the extraction process. Each method has distinct advantages, and their integration allows for enhanced efficiency and higher-grade lithium concentrate production.

DMS is typically employed as a pre-concentration step in the processing circuit. It is particularly effective for the initial separation of coarse spodumene particles from gangue minerals based on their differences in density. By creating a suspension of fine media (such as magnetite or ferrosilicon) in water, DMS enables the separation of dense lithium-bearing minerals from lighter waste materials. This method helps to reduce the overall mass of material requiring further processing, lowering energy costs and enhancing throughput. DMS is most effective on spodumene particles typically greater than 500µm in size, making it ideal for coarse ore fractions.

However, flotation becomes crucial for recovering fine-grained spodumene that DMS is less effective at processing. Flotation uses chemical reagents and air bubbles to selectively adhere to spodumene particles, allowing them to float and separate from other fine minerals. This method is particularly suitable for treating particles that are too small to be effectively separated by DMS, typically in the range of 100 to 500µm. Incorporating flotation allows operators to maximise lithium recovery from finer ore fractions, achieving a higher overall yield from the deposit.

For these reasons, the integration of both DMS and flotation in a processing circuit is becoming increasingly popular, providing a balanced approach that ensures the efficient recovery of lithium across a wide range of particle sizes. DMS handles the coarser fractions effectively, reducing the volume of material needing further treatment, while flotation optimises the recovery of fine-grained spodumene. This dual-stage approach is standard in modern spodumene processing, helping to produce high-quality, battery-grade lithium concentrate suitable for further refining into lithium hydroxide or carbonate.

PROGRAMME OVERVIEW

The objective of the sighter metallurgical testing programme was to assess the amenability of Lei deposit ore to gravity, flotation and magnetic separation for the recovery of spodumene. The test work was conducted at the Nagrom metallurgical and analytical laboratory in Perth on representative bulk composite samples of spodumene pegmatites from high quality diamond core generated from multiple drilling programmes completed at Lei during 2022/2023. Two samples were tested:

- + Run-of-mine composite (**ROM Sample**) at 1.01% Li_2O ; and
- + High-grade composite (**HG Sample**) at 1.73% Li_2O .

Three processing routes were investigated as part of the programme:

- + Whole-of-ore dense media separation (**DMS**) only using heavy liquid separation (**HLS**);
- + DMS with flotation (separately tested with DMS fines and DMS middlings); and
- + Whole-of-ore flotation only.

SUMMARY OF RESULTS

A summary of recoveries and grades for Li_2O and Fe_2O_3 are presented in Table 1 and Table 2. Results from the previously reported initial ore sorting trials are included for comparative purposes.

Table 1: Summary of ROM Sample results (6.3mm crush)

ROM Sample					
	Mass Yield %	Li_2O % Grade	Li_2O Distribution %	Fe_2O_3 % Grade	Fe_2O_3 Distribution %
Head	100.0	1.01	100.0	0.75	100.0
HLS only conc. (6.3mm crush and middlings recrush to 3.35mm)	12.5	6.14	69.6	1.40	25.4
Ore sorter cleaner conc. (-25+10mm)	8.3	5.25	31.3	0.28	3.6
Ore sorter rougher conc. and fines (-25mm)	52.9	2.24	85.0	0.56	45.0

Table 2: Summary of HG Sample results (6.3mm crush)

HG Sample					
	Mass Yield %	Li_2O % Grade	Li_2O Distribution %	Fe_2O_3 % Grade	Fe_2O_3 Distribution %
Head	100.0	1.73	100.0	0.46	100.0
HLS only conc. (6.3mm crush and middlings recrush to 3.35mm)	19.1	6.28	76.9	1.14	42.8
Whole-of-ore flotation only concentrate	22.8	6.05	79.5	0.32	10.8
DMS with fines and middlings flotation conc.	23.9	6.12	85.3	0.58	32.1
Ore sorter cleaner conc. (-25+10mm)	10.0	4.91	29.4	0.23	7.3
Ore sorter rougher conc. and fines (-25mm)	57.8	2.52	87.1	0.29	53.0

DENSE MEDIA SEPARATION (DMS)

DMS is a low-cost, straightforward process route that involves installing a gravity DMS plant after initial crushing to produce spodumene concentrates typically containing around 5.5% Li₂O. This method is effective for rejecting coarse gangue material, making it an attractive pre-concentration step for processing spodumene ore at coarser particle sizes (typically greater than 500µm). The undersize material from the DMS process can be directed to tailings or further processed in a flotation circuit after grinding. DMS circuits can also produce lithium concentrates directly, with their effectiveness largely depending on the degree of spodumene liberation at coarser grain size.

Bench-scale HLS tests

Initial HLS tests were conducted at 12.5mm and 6.3mm crush sizes, following these steps:

- + Subsamples of ROM and HG samples were stage crushed to P100 = 6.3mm and 12.5mm.
- + Crushed samples were wet-screened at 0.5mm.
- + Heavy liquid analysis was performed at specific gravities (**SG**) = 2.6, 2.7, 2.8 2.9 and 2.95 on the >0.5mm size fraction.
- + The middlings fraction was generated by combining the floats from the SG = 2.8, 2.9 and 2.95 (2.95 only for ROM Samples).
- + The middlings fraction was crushed to 3.35mm and wet screened at 0.5mm.
- + Heavy liquid analysis was again performed at the same SG range on the >0.5mm size fraction of the crushed middlings.

Bench-scale HLS results

The tables below detail the lithium grade and distribution achieved through HLS for both samples at two crush sizes, these results include additional lithium recovery from HLS conducted on middlings fraction after crushing to -3.35mm.

Table 3: HLS results (Li₂O)

Crush size	ROM Sample						HG Sample					
	12.5mm			6.3mm			12.5mm			6.3mm		
	Grade % Li ₂ O	Mass Yield %	Li ₂ O Dist %	Grade % Li ₂ O	Mass Yield %	Li ₂ O Dist %	Grade % Li ₂ O	Mass Yield %	Li ₂ O Dist %	Grade % Li ₂ O	Mass Yield %	Li ₂ O Dist %
Head	0.92	100	100	1.11	100	100	1.59	100	100	1.56	100	100
HLS conc. (primary + recrusher)	6.11	8.9	58.7	6.14	12.5	69.6	5.94	21.6	80.5	6.28	19.1	76.9
HLS tail	0.33	74.4	26.3	0.27	69.7	16.7	0.25	64.7	10.1	0.27	64.1	11.1
Fines <0.5mm	0.83	16.7	15.0	0.85	18.1	14.0	1.09	13.7	9.3	1.12	16.8	12.0

Table 4: HLS results (Fe₂O₃)

Crush size	ROM Sample						HG Sample					
	12.5mm			6.3mm			12.5mm			6.3mm		
	Grade % Fe ₂ O ₃	Mass Yield %	Fe ₂ O ₃ Dist %	Grade % Fe ₂ O ₃	Mass Yield %	Fe ₂ O ₃ Dist %	Grade % Fe ₂ O ₃	Mass Yield %	Fe ₂ O ₃ Dist %	Grade % Fe ₂ O ₃	Mass Yield %	Fe ₂ O ₃ Dist %
Head	0.83	100	100	0.69	100	100	0.54	100	100	0.51	100	100
HLS conc. (primary + recrusher)	0.73	8.9	7.8	1.40	12.5	25.4	1.13	21.6	45.1	1.14	19.1	42.8
HLS tail	0.63	74.4	56.6	0.37	69.7	37.8	0.24	64.7	28.4	0.22	64.1	27.5
Fines <0.5mm	1.77	16.7	35.6	1.42	18.1	37.1	1.06	13.7	26.6	0.90	16.8	29.8

- + The HG Sample returned a better recovery relative to the ROM Sample in the 6.3mm crush size, achieving a nominal 6% Li₂O concentrate grade.
- + The HG Samples showed a slight increase in lithium recovery compared to the ROM Sample at the coarser crush size which is caused by a reduction in lithium loss to fines and from a minor reduction in concentrate grade.
- + The ROM Sample showed a significant improvement in recovery compared to the HLS sinks at the finer crush size.

HLS results represent ideal separation conditions; to better approximate separation in a plant, further DMS cyclone testing will be required to assess plant performance.

FLOTATION PROCESS

Froth flotation is the most widely used technique for the beneficiation of lithium-bearing minerals such as spodumene, typically resulting in a higher-grade lithium concentrate compared to methods like DMS. Flotation is essential for processing fine particle size feed. Two flotation processes were bench tested:

1. Whole-of-ore flotation, and
2. Combined DMS middlings and -0.5mm fines flotation.

Froth flotation tests

The preparation for froth flotation was carried out at Nagrom, following these steps:

Whole-of-ore flotation

- + The sample was ground to P80=106µm, a size chosen for benchmarking, aligned with similar grind sizes used in Canmax test work (66.5% -74µm).
- + The ground sample was deslimed to remove the <20µm.
- + Deslimed sample processed through magnetic separation using wet high intensity magnetic separation to remove iron contamination.
- + Mica flotation was conducted at both neutral and low pH to determine impact of changed pH.
- + Spodumene flotation was then conducted on mica flotation tailings using a range of flotation collectors.

Combined DMS middlings and -0.5mm fines flotation

- + The sample was crushed to -6.3mm, the screened at 0.5mm. The +0.5mm fraction underwent two stages of DMS to produce a waste fraction (floats at SG=2.7) and a product sinks fraction (SG=2.9). The floats from the SG=2.9 were combined with the -0.5mm fraction.
- + The combined sample of SG=2.9 floats and -0.5mm fraction was then ground to P80=106µm for flotation testing.
- + The ground sample was deslimed to remove the <20µm slime, which is typically problematic in flotation.
- + The deslimed sample underwent wet high-intensity magnetic separation to remove iron contamination.
- + Mica flotation was performed at both natural and low pH to evaluate the impact of pH on the process.
- + Spodumene flotation was subsequently carried out on the mica flotation tailings.

Froth flotation results

Whole-of-ore flotation

- + Using a low pH of 2.5 during the mica removal step before spodumene flotation significantly improved Li₂O grade and recovery, achieving 79.1% Li₂O recovery to a concentrate grading 6.18% Li₂O
- + Overall, whole ore floatation achieved 79% Li₂O recovery into a concentrate grading 6.18% Li₂O with a low 0.33% Fe₂O₃ content, using a low pH in the mica float, from a sample with head grade of 1.7% Li₂O and 0.7% Fe₂O₃.

Combined DMS middling's with -0.5mm fines flotation

- + A combination circuit comprising DMS with flotation is employed by multiple lithium operations, to produce a fine flotation spodumene concentrate and coarse spodumene concentrate. While this circuit is more complex than a whole ore flotation route, it enables smaller milling and flotation circuits, offering potential capital and operating cost savings.
- + Using a low pH of 2.5 during the mica removal flotation step before spodumene flotation significantly increased the total Li₂O recovery and grade. A combined Li₂O recovery of 85.3% was achieved with a concentrate grading 6.12% Li₂O. Of this, 62% of the Li₂O recovery was attributed to DMS, with the remaining 38% from flotation.
- + The combined DMS and flotation route showed a minor 6% increase in overall Li₂O recovery compared to whole-of-ore. However, further optimisation of the whole-of-ore flotation circuit could potentially reduce this difference.

NEXT STEPS

Metallurgical testing is ongoing with work designed to refine and optimise potential process routes.

ABOUT CANMAX TECHNOLOGIES CO., LTD.

Canmax is a diverse industrial conglomerate renowned for its expertise and leadership in the lithium industry, specialising in downstream lithium processing. It is involved in various stages of the lithium supply chain, from processing raw materials to producing high-purity lithium products used in batteries and other applications.

Canmax's lithium operations include three major chemical facilities: a 75,000-tonne-per-annum lithium hydroxide plant in Yibin (a joint venture with CATL), a 60,000-tonne-per-annum lithium hydroxide plant in Meishan, and a 30,000-tonne-per-annum lithium carbonate plant in Yichun (a joint venture with CATL). Canmax is listed on the Shenzhen Stock Exchange under the code 300390.SZ.

MINERAL RESOURCE

The MRE summary for the Lei Deposit is outlined in Table 1. Resources have been estimated as 4.09Mt @ 1.43% Li₂O at 0.5% cutoff including Indicated and Inferred material, with measured material not classified at this time. (Refer ASX announcement of 19 December 2023)

Table 5: Mineral Resource Summary (at 0.5% Li₂O cutoff)

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

All Mineral Resource Estimates are inclusive of drilling undertaken throughout 2022 and 2023.

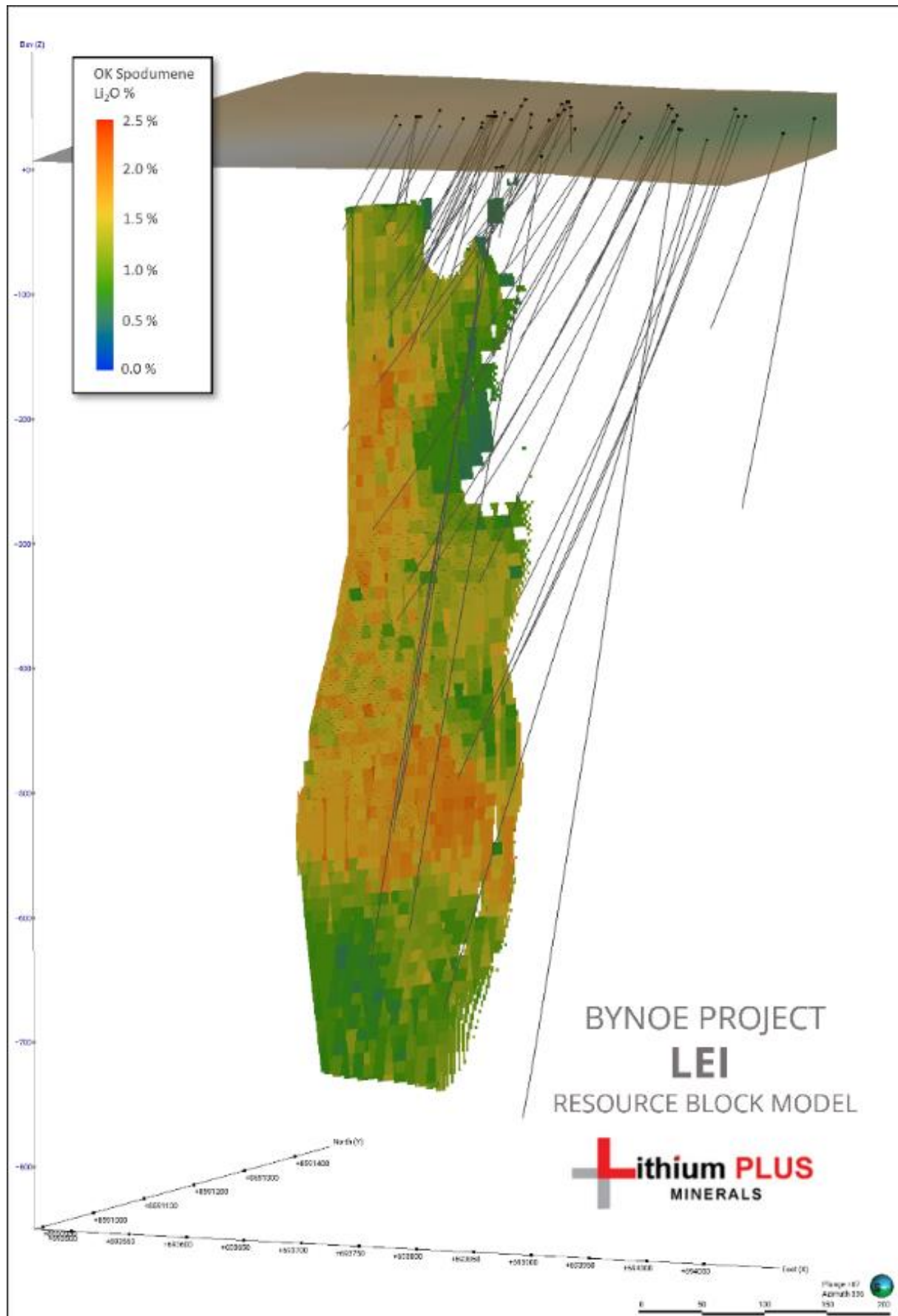


Figure 1: Lithium Grade (Li₂O%) distribution across the Lei Resource

Competent Person Statement

The information in this release that relates to Exploration Results for the Bynoe Lithium Project is based on, and fairly represents, information and supporting documentation prepared by Dr Bryce Healy, Exploration Manager of Lithium Plus Minerals Ltd. Dr Healy is a Member of the Australasian Institute of Mining and Metallurgy and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken 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". Dr Healy consents to the inclusion in this release of the matters based on the information in the form and context in which they appear.

The information in this ASX Announcement that relates to Metallurgical results is based on information compiled by Mr Jeremy Ison, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (FAusIMM). Mr Ison is a consultant for Lithium Plus. Mr Ison has sufficient experience in mineral processing of this nature to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Page 5 of 22 Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ison consents to the inclusion in this Announcement in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX release, and the form and context of the announcement has not materially changed.

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

Contact:

Dr Bin Guo
Executive Chairman
+61 02 8029 0666
bguo@lithiumplus.com.au

Mr Simon Kidston
Non-Executive Director
+61 0414 785 009
skidston@lithiumplus.com.au

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 (100% LPM)

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 km². Geologically centred around the Bynoe Pegmatite Field, the tenements share a border with Core Lithium's Finniss 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 (100% LPM)

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 (100% LPM)

Barrow Creek

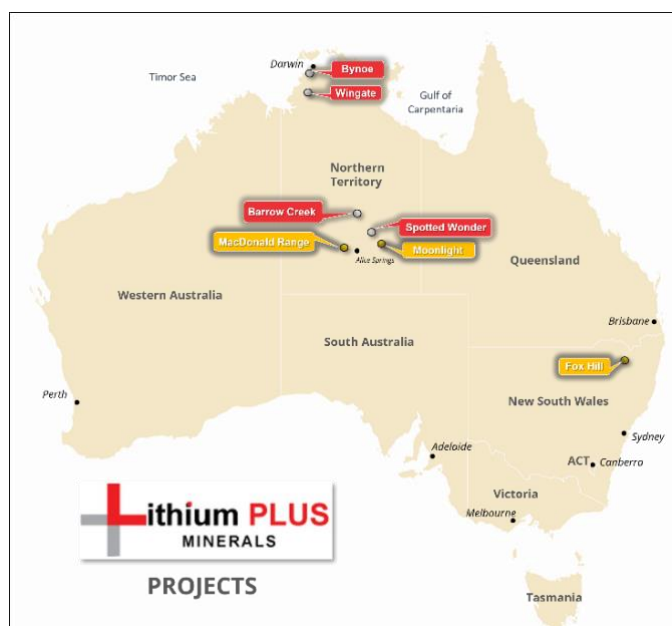
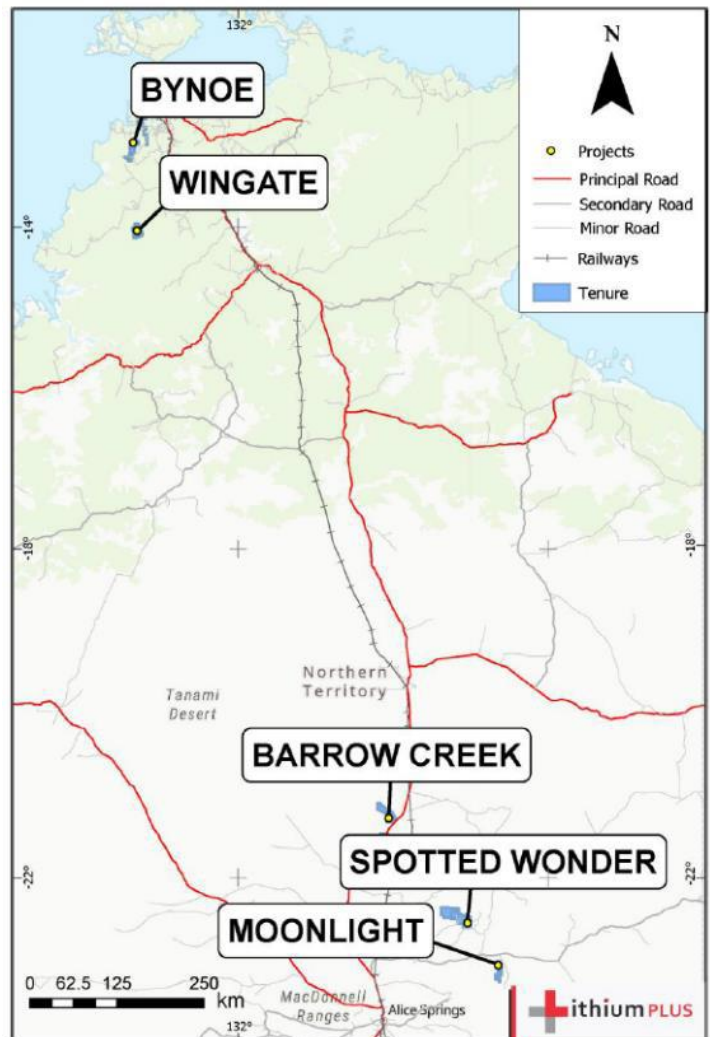
Located in the Northern Arunta pegmatite province, 300km north of Alice Springs. Historic tin and tantalum production and the presence of spodumene in nearby Anningie Pegmatite field suggest lithium potential.

Spotted Wonder

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

Moonlight Resources Pty Ltd (50% LPM)

Australian uranium and REE portfolio including MacDonnell Ranges Uranium Project and the Moonlight Project in the NT, and the Fox Hill REE Project in NSW.



Appendix 1: Metallurgical Samples, Related Exploration Results and Compositing

Sample ID	Drill Hole ID	Core Type	From (m)	To (m)	Length (m)	Est Sample Mass (kg)	Lithium Grade (Li ₂ O%)	Fe Grade (ppm)	ROM Comp Mass (kg)	HG Comp Mass (kg)
MS_001	BYLDD006	½ HQ	214.3	219	4.70	20.54	1.06	1113	5.14	7.17
MS_002	BYLDD011	½ HQ	465	475	5.00	20.90	1.18	1597	5.12	7.1
MS_003	BYLDD011	½ HQ	444.95	450	5.05	21.46	0.85	1912	5.17	
MS_004	BYLDD026	½ HQ	150	155	5	19.18	1.13	1035	5.17	7.02
MS_005	BYLDD019	½ HQ	722	727	5	22.62	1.16	4411	5.02	7.16
MS_006	BYLDD011	½ HQ	450	455	5	22.98	2.12	3152	5.21	7.17
MS_007	BYLDD015	½ HQ	567	572	5	20.38	1.48	1983	5.08	7.06
MS_008	BYLDD019	½ HQ	653.26	658	4.74	18.48	1.68	2527	5.09	7.11
MS_009	BYLDD031	½ HQ	113	118	5	18.84	0.67	751	5.11	
MS_010	BYLDD021	½ HQ	790	795	5	21.88	0.67	3373	5.13	
MS_011	BYLDD015	½ HQ	561	565.6	4.60	19.22	1.66	12304	5.13	7.01
MS_012	BYLDD027	½ HQ	170	175	5	20.1	0.77	6302	5.09	
MS_013	BYLDD011	½ HQ	475	480	5	21.92	1.20	2069	5.17	7.19
MS_014	BYLDD019	½ HQ	658	663	5	19.78	1.86	2417	5.03	7.12
MS_015	BYLDD022	½ HQ	788	793.1	5.10	22.5	0.28	17871	5.17	
MS_016	BYLDD015	½ HQ	577	582	5	22.14	1.45	1469	5.12	7.22
MS_017	BYLDD011	½ HQ	455	460	5	21.44	2.36	3030	5.17	7.09
MS_018	BYLDD027	½ HQ	155	160	5	19.2	0.97	24123	5.15	
MS_019	BYLDD019	½ HQ	697	702	5	23.84	2.37	3705	5.01	7.04
MS_020	BYLDD015	½ HQ	587	592	5	22.16	1.23	1100	5.17	7.12
ROM COMPOSITE							1.31	0.48	102.45	
HIGH GRADE COMPOSITE							1.57	0.30		99.58

The G400I assay method (4-acid ICP-OES/S) is report here for Lithia and iron grades

Appendix 2: Test work Sample Composite Summary

Phase	Title	Grade		Number of Drill Holes	Number of Intervals	Length (m)
		Li ₂ O (%)	Fe ₂ O ₃ (%)			
MRE – Mining One	Resource Classification (4.09Mt)	1.43				
Concept Study	ROM Composite	1.39	0.48	9	20	99.2
	High Grade Composite	1.67	0.30	5	14	69.0

Assay data from NAGROM (assay by ICP-OES) is report here for Lithia and iron grades

Appendix 3: Summary of drill holes used in Test work Sample Composites

Hole ID	Collar Co-ordinates GDA94 MGA Zone 52		Survey Data			
	Easting	Northing	RL (m)	Azi (°)	Dip (°)	Depth (m)
BYLDD006	693796	8591290	27	270	-60	279.7
BYLDD011	693886	8591200	24	271	-60	495.5
BYLDD015	693928	8591246	35	266	-69	606.7
BYLDD019	693861	8590905	35	319	-63	756.6
BYLDD021	693863	8590907	23	315	-70	851.5
BYLDD022	693960	8591096	24	289	-70	862.1
BYLDD026	693719	8591218	17	276	-62	204.4
BYLDD027	693717	8591217	17	282	-65	201.5
BYLDD031	693744	8591313	19	260	-56	135.5

JORC, 2012 Edition: Table 1 report

Section 1 Sampling Techniques and Data

This Table 1 refers to 2022/2023 Lithium Plus Minerals (LPM) drilling and metallurgical sampling at the Lei Prospect, Bynoe Project.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Drill core samples (Appendix 1) from the Lei Prospect, Bynoe were provided by diamond (DDH) drill holes completed from the 2022 and 2023 drilling campaigns by Lithium Plus Minerals Ltd. <p>Diamond drilling</p> <ul style="list-style-type: none"> Diamond holes were completed using diamond drilling with HQ core to planned EOH. The drillholes were sampled on intervals based on mineralisation potential, lithology contacts and structure. Larger diameter HQ core had preference as a sample technique due to the coarse nature of mineralogy in the target lithology. Drill core was collected directly into core trays, marked with hole orientation, downhole lines and metre marks. The core was transported directly to the LPM logging facility in Darwin for geological logging and sampling. Sampling adopted a recommended 1 metre of core length to maintain representivity and based on observed sample heterogeneity with sample size down to 0.3m to match geological contacts. 1m sampling continued into the barren wall zone of the pegmatite and then for 3m into the immediate metasedimentary wall-rock. The core was cut in half by a diamond core saw with care taken to sample the same side of core for a representative sample. <p>Metallurgical Composite Sampling</p> <ul style="list-style-type: none"> The geological block model incorporating the drill hole database was loaded into specialist software, Cancha (Cancha Geometallurgy) to better assess the representivity of

Criteria	JORC Code explanation	Commentary
		<p>the sample and provide a structured method for sample selection and matching metallurgical results to the geological data.</p> <ul style="list-style-type: none"> Twenty (20) composite metallurgical samples (419.56 kg) were taken from ½ core (HQ) from 9 representative diamond holes (BYLDD006, BYLDD011, BYLDD015, BYLDD019, BYLDD021, BYLDD022, BYLDD026, BYLDD027, BYLDD031). Composite samples (summarised in Appendix A and B) varied in length from 4.60 to 5.09m (downhole length) and were matched to assay sample intervals. Two subsequent composites (ROM and HG comps) were provided to NAGROM test facilities in Kelmscott, Western Australia, with a target mass of 100kg for each composite sample. The ROM recipe incorporates equal masses from each of the 20 metallurgical samples, while the HG currently includes only samples with grades > 1% Li₂O (Appendix 2). Samples were bagged and sent to NAGROM laboratories in Perth for crushing and screening. Samples have lithium grades close to the MRE grade which improves test work relevance, as test work is being conducted on samples that don't have significantly higher grade than the MRE which typically improves recovery. Crushed samples (-25mm +10mm) were shipped to Stark testing facilities in Belgium. These were labelled ROM Composite and HG Composite. Both samples were crushed and screened to -25mm +10mm. The HG composite totalled 41.2kg in mass while the ROM composite totalled 42.2kg. All ore sorting products (rougher waste, cleaner product, cleaner waste) were packaged up by the Optimum team and returned to Nagrom in Perth where they underwent sub-sampling and assay by ICP-OES. From this, a staged and global balance was produced for each composite sample. Nagrom use Riffle Splitters and Rotary Sample Dividers for dry samples and Cone and Quartering for moist cakes to generate subsamples for assay.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.). 	<ul style="list-style-type: none"> Diamond drilling was carried out by drilling contractor, DDH1 Pty Ltd using an DE 710 track mounted Drill Rig with HQ3 (63.5mm) standard tube. Core is oriented with a Reflex Ez-Trac tool. The oriented core line is recorded for length and confidence and is never sampled, preserving the line for future use.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Diamond drill recovery is recorded run by run reconciling against driller's depth blocks noting depth, core drilled, and core recovered. Geological logging currently documents core recoveries within 95% of expected with nothing recorded concerning the amount and consistency of material recovered from the drilling.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Geological logging identifying the primary lithologies, mineralogy and core run recovery has been undertaken by suitably qualified geologists along the entire length of the hole. All holes have been logged for mineralogy, veining, alteration, weathering, structure, and other sample features as appropriate to the style of deposit. Logging has been undertaken at site and at the Company's core logging facility. Pegmatite intervals have been checked for UV light-response for spodumene identification and to provide qualitative information as part for the logging process. Logging is stored in MX Deposit Database software which utilises validated logging lists and data entry rules. All core trays have been photographed in natural light.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The level of detailed logging is aimed at supporting detailed geological modelling considered appropriate for future potential Resource estimation and metallurgical studies. The pegmatite intervals (and up to 3m of the immediate wall rock) within the drillhole were sampled on intervals based on mineralisation potential, lithology contacts and structure. Sampling length ranged up to 1.0 metre of core length, appropriate to geology and mineralogy. Sampling is ½ cut core by diamond core saw by experienced LPM personnel at onsite core cutting facilities at Yarrowonga. ½ HQ core size is considered by LPM to be the minimum acceptable standard for representivity of pegmatite samples. Sampled core was transported to North Australian Laboratories (NAL) in Pine Creek for sample analysis. ½ core is retained in plastic core trays at the LPM core facility for future work and reference. Sample preparation and associated QA/QC protocol has not been undertaken and will be reported at the appropriate time. Metallurgical sampling composites intervals were matched to primary sample intervals lengths using the remaining ½ core. Sampled core was transported to Nagrom Laboratories (Nagrom) in Western Australia for sample analysis and crushing and screening. A sub-sample of the crushed sample (-25mm +10mm) was sent to Stark testing facilities in Belgium for ore sorting test work before being returned to Nagrom in Perth where they underwent sub-sampling and assay by ICP-OES. Nagrom use Riffle Splitters and Rotary Sample Dividers for dry samples and Cone and Quartering for moist cakes to generate subsamples for assay.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Original Sample analysis for DDH samples were undertaken at North Australian Laboratories, Pine Creek, NT. A 0.3 g sub-sample of the pulp is digested in a standard 4 acid mixture and analysed via ICP-MS and ICP-OES methods for the following elements: Li, Cs, Rb, Sr, Nb, Sn, Ta, U, As, K, P, S and Fe. The lower and upper detection range for Li by this method are 1 ppm and 5000 ppm respectively. During the drilling programme a 3000 ppm Li trigger was set to process that sample via a fusion method. The fusion method was - a 0.3 g sub-sample is fused with 1g of Sodium Peroxide Fusion flux and then digested in 10% hydrochloric acid. ICP-OES is used for the following elements: Li, P and Fe. The lower and upper detection range for Li by this method are 10 ppm and 20,000 ppm respectively. The laboratory has a regime of 1 in 8 control subsamples. NAL utilise standard internal quality control measures including the use of Certified Lithium Standards (approx. 1 in 4) and duplicates/repeats (approx. 1 in 6). Approximate LPM-implemented quality control procedures include: <ul style="list-style-type: none"> One in 20 certified Lithium ore standards were used for this drilling. One in 20 duplicates were used for this drilling programme. One in 20 blanks were inserted for this drilling. <p>QAQC of drilling data</p> <ul style="list-style-type: none"> LPM used 3 standards based on Bynoe Region pegmatites between 2300ppm and 10200ppm Li. LPM used 1 blank based on granite chips between 38 ppm Li. No umpire samples <p>Metallurgical sample assays</p> <ul style="list-style-type: none"> Nagrom laboratory prepared metallurgical samples using a fusion with sodium peroxide and digested in dilute hydrochloric acid. The resultant solution is analysed by ICP for Li₂O, Fe₂O₃, Al₂O₃, SiO₂, TiO₂, Mn, S, P, SnO₂, Ta₂O₅, Nb₂O₅, Na₂O, PbO, CaO, MgO, K₂O, Rb and LOI1000.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> ROM and HG Composite assay results from NAGROM varied from the primary composite sample estimate from NAL, which is attributed to variability between 1/2 core segments due to the coarse nature of the ore mineralogy. LPM believe the agreement between the samples is acceptable for the purposes of the work undertaken and presented within this release.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Detailed logging of the core is entered directly into excel spreadsheets prior to finalising in MX deposit Database software. MX Deposit utilises validated logging lists and data entry rules. The logging is routinely checked and manually verified within against core photos and recovery by the exploration manager and the site procedures are routinely verified by the Site manager. Audits of the logging will be periodically done by external consultants. Metallic lithium percent was multiplied by a factor of 2.153/10000 to report Li ppm as Li₂O%.
Location of data points	<ul style="list-style-type: none"> 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. Quality and adequacy of topographic control. 	<p>Drill Collar</p> <ul style="list-style-type: none"> Handheld GPS derived Easting and Northing coordinates were captured for each collar location, and have not been modified from their originals, captured as MGA94 - Zone 52. The GPS collar coordinates have a high variability in Northing and Easting ($\pm 10\text{m}$) in RL, especially 2016 holes ($\pm 15\text{m}$). To provide an internally consistent model for accurate production of volumes and relative geometry, topographic control for both the deposit modelling boundaries and collar RL coordinates is set with a triangulation derived from 1 Arc Second SRTM (2001) data. This data has been deemed adequate due to the lack of high frequency prominent features in the drilled area. Downhole surveys are conducted using Reflex EZ shot (2023) and Reflex Sprint IQ Gyro (Pre-2022) survey tools. Surveys are generally conducted at 30m intervals, with some campaigns of closer spaced gyro surveying.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill spacing is determined by the stage of exploration of the prospect. The current hole positioning has been aimed at to 40 to 80m spacing along strike and vertical at a distance suitable to define structural trends and establish continuity of the pegmatite body. Mineralised intervals reported are based on a maximum of one metre sample interval, with local intervals down to 0.3m
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill spacing is determined by the stage of exploration of the prospect. Multiple zones exist with differing intercept spacing. The upper area of the Lei Main pegmatite is well represented by a ~25m drillhole spacing. Middle levels are variably intercepted at a 50m spacing, with deep intercepts being spaced at 100m or more. 100m spaced drilling has been established at nearby similar pegmatite deposits as adequate for tracing continuity, with tighter spacing required for delineation of local perturbation and bifurcation. Mineralised intervals reported are based on a maximum of one metre sample interval down hole, with local intervals down to 0.3m Grade within the mineralised core of the pegmatite has been shown to be high nugget due to grain size, but consistent over large distances. The hole spacing is deemed adequate to estimate mineral grades with applied classification.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> 1m compositing has been conducted within each lithological domain to ensure a standardised representation of grade.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Drill core samples for assay is collected by LPM personnel from site and transported to the core logging facility in Darwin daily. The logging facility is within a secure industrial premises, within a gated and fenced complex. The samples are logged in detail and processed for sampling prior to be transported off site by LPM personnel to core cutting facilities and then analytical laboratory for analysis.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No review or audit has been conducted on the current drilling.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Bynoe project is centred around 15 km south of Darwin (at 12°40'S latitude, 130° 45'W longitude). The drilling and associated metallurgical sampling reported here took place at the Lei prospect (EL 31091). Lithium Plus Minerals Ltd are the registered holders of 22 EL's. The tenements are in good standing with the NT DPIR Title Division.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Previous exploration of pegmatite hosted mineralisation has occurred in the Bynoe region predominantly through historical small-scale workings targeting Sn ± Ta and through regional recent RC drilling programmes by Core Exploration and Liontown Resources. Within Lithium Plus's target areas only historical workings and sparsely selected rock chip samples (pegmatite + host rock) have been previously undertaken. First pass drilling on the mentioned prospects was conducted by Kingston Resources under the current tenure in 2017. This is the first metallurgical work programme to be completed at Lei.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Tenements listed above form part of LPM's Bynoe Project which is in the Bynoe Pegmatite Field (NTGS Report 16). The Bynoe Pegmatite Field (BPF) is situated within the bounds of the Paleoproterozoic Pine Creek Orogen (PCO) and as part of the 180km long corridor of Lichfield Pegmatite Belt that extends from Darwin Harbour in the north to Wingate Mountains in the south. The BPF covers an approximate 70km x 15km area and contains numerous pegmatite dykes hosted in metasediments of the Finnis River Group including the widespread Burrel Creek Formation (BCF) and counterparts (Welltree, Metamorphics) in the west. The BCF comprises various sandstones, siltstone, shale, phyllite, schist, and minor conglomerate. The Two Sisters Granite intruded the BCF in the east and is generally considered as the parent to the numerous dyke swarms of the Bynoe Pegmatite Field. Over 100 pegmatites are grouped into several clusters including Observation Hill, Leviathan, Kings Table, River Annie, Walkers Creek, and Labelle pegmatites. The extent of the pegmatites is highly variable and may range from less than a meter to tens of meters wide and up to hundreds of meters long. The pegmatite swarms are irregularly distributed but are ordinarily conformable to the regional schistosity and often sub-parallel bedding. Most are

Criteria	JORC Code explanation	Commentary
		<p>steeply plunging with occasional instances of shallower or horizontal emplacement. Contacts with the wall rocks are generally sharp with common generation of hornfels in the metasediments with variable production of large andalusite crystals and fine tourmaline.</p> <ul style="list-style-type: none"> The Lei Main pegmatite is interpreted to be a single coherent body with multiple inclusions of rafts of wall-rock on a NE-SW sub-vertical orientation. The geometry is generally a lenticular prism, with steep plunge and lateral pinch-out along strike. Significant variations in thickness occur over short distances, with theorised short distance offshoots and lobes on multiple scales. Internal wall-rock rafts are also variable, often existing within only a single drillhole but sometimes persisting across hundreds of meters. Schistose fabric is developed to a higher degree within the rafts, likely because of late emplacement-related shears, suggesting isolated waste rafts are aligned sub-parallel with the major pegmatite trend. The edges of the pegmatite and internal rafts form persistent barren zones proximal to spodumene mineralisation Fresh pegmatite at Lei is composed of coarse spodumene, quartz, albite, microcline and muscovite. Spodumene, a lithium-bearing pyroxene ($\text{LiAl}(\text{SiO}_3)_2$), is the predominant lithium-bearing phase and displays a diagnostic orange-pink UV fluorescence.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole downhole 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. 	<ul style="list-style-type: none"> See Appendix 1 and Appendix 3 for drill hole information relevant to this release. No drilling or material assay information has been excluded.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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. 	<ul style="list-style-type: none"> Any sample compositing reported here is calculated via length weighted averages of the 0.3 to 1 m assays. Length weighted averages are acceptable method because the density of the rock (pegmatite) is constant. 0.3% Li_2O was used as lower cut off grades for compositing and reporting intersections with allowance for including up to 2m of consecutive drill material that has assayed below cut-off grade (internal dilution). There has been no top-cut to high grade with all 1m samples below 3.50% Li_2O. No metal equivalent values have been used or reported
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The Average geometry of the orebody is a steeply dipping plane with an average Dip and dip direction of $87^\circ \rightarrow 123^\circ$. Holes are drilled obliquely to the strike of the pegmatite with intersecting azimuths of 325° and 265° being within 46° of being perpendicular to deposit strike. Holes are drilled at a plunge of 60° or greater, which when combined with the steep geometry of the pegmatites, results in intersection angles from $\sim 45^\circ$ down to $\sim 35^\circ$ from the hanging-wall position. The general orientation of the Lei Pegmatite is known so

Criteria	JORC Code explanation	Commentary
		indicative true thicknesses may be calculated. Intercepts added to the geological model may have true thicknesses estimated as minimum distance across the intercept accounting for local variation in orientation
Diagrams	<ul style="list-style-type: none"> 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 drillhole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> NA
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All relevant exploration results have been reported.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All relevant exploration data have been reported.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. 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. 	<ul style="list-style-type: none"> Lithium Plus Minerals is conducting additional DD drilling at its Lei Prospect to evaluate the down-plunge extent of the pegmatite. Further test work planned to refine and optimise further improvements in the process including downstream test work on sorter products, testing with alternative sorter technologies such as XRT, ore sorting test work at different size ranges and bulk sorting test work. High Level scoping study aimed at quantifying costs for implementing a crushing and ore sorting facility onsite.