

**19 December 2023** 

# MAIDEN HIGH-GRADE LITHIUM RESOURCE DECLARED AT LEI

Lithium Plus Minerals Limited (ASX: LPM) (**Lithium Plus** or the **Company**) is delighted to declare a **maiden 4.1Mt at 1.43% Li<sub>2</sub>O Mineral Resource Estimate (MRE)** at the 100% owned Bynoe Lithium Project near Darwin in the Northern Territory, Australia.

# **Highlights**

- + Maiden MRE of 4.1Mt @ 1.43% Li₂O at 0.5% cutoff including Indicated and Inferred material.
- + Includes assay results from the recently completed drilling program comprising seventeen (17) drill holes for ~7,332 metres. Significant intersections include:
  - 50m at 1.83 % Li<sub>2</sub>O from 613m (BYLDD034)
  - 39m at 1.55 % Li<sub>2</sub>O from 204m (BYLDD023); and
  - 33m at 1.65 % Li<sub>2</sub>O from 642m (BYLDD035)
- + **Primary Lei pegmatite contributed solely to current MRE**, with the open zone beneath the extent of current drilling to remain a potential target for future work.
- + Secondary Lei pegmatite not currently included in Resource modelling and is expected to be followed up in future potential drilling programs.
- + Further drilling focus now shifts to Perseverance and Jenny's prospect areas in line with multiple discovery strategy and expected hub and spoke model for future development.
- + Up to five (5) diamond tails and diamond tail extension holes to be completed at Perseverance in the field season 2024.
- + Lei Deposit advancement to continue in parallel with preliminary metallurgical test results expected to be available Q1 2024.

# Commenting on the maiden MRE for the Lei Deposit, Executive Chairman, Dr Bin Guo, said:

"We have delivered on our commitment to shareholders to delineate a high-grade Mineral Resource by year end at Lei. This milestone represents the culmination of targeted exploration activities by the Lithium Plus team at Lei throughout the 2022 and 2023 field seasons. We are confident in the potential at Bynoe and that this outcome represents the first of numerous, similar style, lithium deposits capable of being delineated across our richly fertile pegmatite fields.

Our exploration focus now firmly shifts to our set of high priority pegmatite occurrences, initially targeting the Perseverance and Jenny's prospect areas. In parallel we continue to firm up drill targets from among the many historically known pegmatites occurring in clustered linear swarms in and around the King's Landing Area and beyond.

The maiden MRE at Lei is a significant first step in line with our multiple discovery strategy and expected hub and spoke model for future development potential. We now look forward to Q1 2024 and another busy year of advancement of our Bynoe Lithium Project".



# **MINERAL RESOURCE**

The MRE summary for the Lei Deposit is outlined in Table 1. Resources have been estimated as  $4.09Mt @ 1.43\% Li_2O$  at 0.5% cutoff including Indicated and Inferred material, with measured material not classified at this time.

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

Resource Category	Million Tonnes	Li <sub>2</sub> O (%)	Contained Li₂O (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. Final results from the 2023 drilling campaign are provided in Table 2 and Table 3.

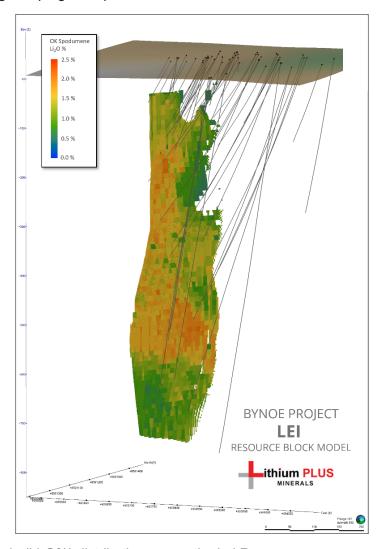


Figure 1: Lithium Grade (Li<sub>2</sub>O%) distribution across the Lei Resource



#### SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA

**Geology and Geological Interpretation** 

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 area of approximately 70km x 15km 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. Pegmatite swarms are irregularly distributed but are ordinarily conformable to the regional schistosity and often sub-parallel bedding. Most are 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.

# **Primary Lei Pegmatite**

The Primary Lei 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 (LiAl(SiO<sub>3</sub>)<sub>2</sub>), is the predominant lithium-bearing phase and displays a diagnostic orange-pink UV fluorescence.





Figure 2:(Left) Coarse spodumene in dry core; (Right) Spodumene fluorescing orange under a UV lamp as part of the standard logging process.



The modelled pegmatite ranges from 10m to 60m in thickness and extends approximately 230 metres between the tenement boundary to the SW and the pinching out of the unit to the NE. The pegmatite is confirmed to have a vertical extent of at least 700m. Bulging adjacent to the tenement boundary is in line with surface observations and thickening of intercepts towards the southwest.

### Sampling and sub-sampling

Drill core was collected into trays, marked with drillers breaks, orientation marks, and depth measurements, then secured per industry standards. After logging, sampling was conducted generally on 1 metre intervals of HQ core to maintain representative grades across ore intercepts. Shorter sample intervals occur down to no less than 0.3m to align with pertinent geological contacts related to lithology and internal zoning of the pegmatite, aided with spodumene logging both visually and with UV fluorescence. Interval sampling of 1m persisted into the barren wall rock proximal to the mineralised pegmatite for a minimum of 2m in the up- and down-hole directions.

The core was cut in half by a diamond core saw with care taken to sample a consistent side of the core and preservation of orientation line, ½ HQ core size is considered by LPM to be the minimum acceptable standard for retrospectivity of pegmatite samples given its coarse grainsize.

Sampling for Reverse Circulation (**RC**) holes were subsampled as 3-4KG and collected at 1m intervals, homogenised via a cone splitter at the drill rig.

# Drilling techniques and hole spacing

Multiple campaigns of both RC drilling and sampling were undertaken at the Lei project in 2017, 2022 and 2023 and utilised in the estimation of the Mineral Resource. In 2017, 9 RC holes were drilled by Kingston Resources, with 12 RC and 35 Diamond holes drilled by Lithium Plus in 2022 and 2023.

The deposit has a spread of intercepts over a 700m depth extent and 150m along strike. The north-eastern extent is well defined by holes that did not intercept pegmatite at the target depth (refer Figure 3 and Figure 4).



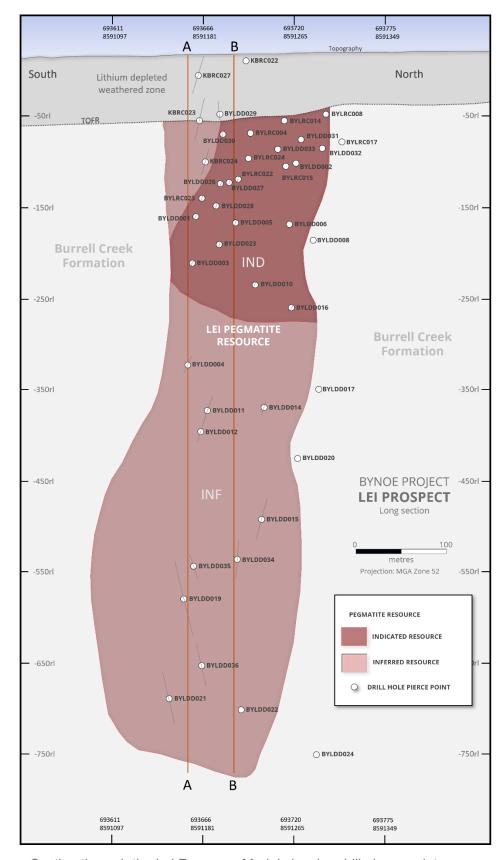


Figure 3: Long Section through the Lei Resource Model showing drill pierce points.



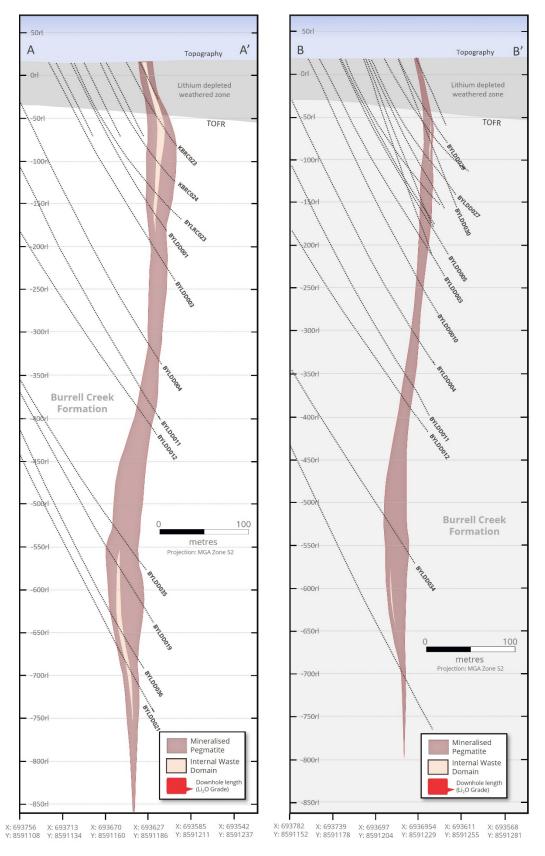


Figure 4: Cross sections through the Lei deposit showing drill spacing and intersections.



### **Sample Analysis Method**

Sample analysis for DDH samples were undertaken at North Australian Laboratories, Pine Creek, NT. A 0.3g sub-sample of the pulp is digested in a standard 4-acid mixture and analysed via ICP-MS and ICP-OES methods for the 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 1ppm and 5000ppm respectively. During the drilling program a 3,000ppm Li trigger was set to process that sample via a fusion method, being a 0.3g sub-sample fused with 1g of Sodium Peroxide Fusion flux and then digested in 10% hydrochloric acid.

ICP-OES is used to ascertain Li, P and Fe with a lower and upper detection range for Li of 10ppm and 20,000ppm respectively.

For the 2022 RC program, a sub-sample of lab-prepared pulp is digested via sodium peroxide fusion (zirconia crucibles) and hydrochloric acid to dissolve the melt and analysed via Inductively Coupled Plasma Mass Spectrometry (ICP-MS: FP1MS) and Optical (Atomic) Emission Spectrometry (ICP-OES: FP1/OE) methods for the elements: As, Be, Cs, Fe, K, Li, Nb, Rb, Sn, Sr, Ta, Th and U.

Standards, blanks and duplicates have all been applied in the QAQC methodology. Sufficient accuracy and precision have been established for the type of mineralisation encountered and is appropriate for QAQC in the Resource Estimation

# **Estimation Methodology**

Weathering, Lithology and mineralisation domain wireframes were generated within the Leapfrog Geo software, with compositing of Li<sub>2</sub>O assays to 1m intervals within the final domains for use in estimation.

Grade estimation of Li₂O (calculated from Li Assays) attributable to Spodumene was conducted using Ordinary Kriging (**OK**) within the Leapfrog EDGE software. Variograms were set using the major trends of the orebody at 87° − 123° with 80° pitch with nugget set at 0.5 after analysis of downhole variograms. The estimate was done with variable anisotropy utilising the geometry of the mineralised pegmatite domain.

Grade was estimated within the pegmatite, ignoring any non-spodumene Li grade within the metasediments of the wall rock and barren continuous internal waste domains due to the assumption that non-spodumene Li minerals are un-recoverable, and that all Pegmatite associated Lithium content is Spodumene.

The block model was constructed with a parent block size of 10m (X) x 10m (Y) x 10m (Z) with subblocking by lithology domains to a minimum size of 1.25m x 1.25m x 2.5m, respectively.

Comparison estimates were also conducted using Inverse Distance squared (**ID2**) to provide an alternative. With a result returning <0.1% difference to the OK model.

No top-cutting was applied in the estimation as the highest values were not considered to be outliers.



#### **Cut-off Grades and Eventual Economic Extraction**

The Mineral Resource Estimate has been reported at a cut-off grade of 0.5% Li<sub>2</sub>O. This cutoff produces an average resource grade of 1.43% Li<sub>2</sub>O which is similar grade to the nearby pegmatites currently being economically mined by Core Lithium. Lei is considered to have multiple pathways to economic extraction in an underground scenario given proximity to existing similar deposits.

#### Classification Criteria

The Resource Classification is based on drill spacing and the geostatistical analysis of the mineralisation within the deposit. It is assessed that a pierce-point spacing of approximately 100m is sufficient for an 'Inferred' classification at Lei with closer spaced drilling serving to upgrade the resource class. A classification of 'Indicated' is based on an approximate 50m drill spacing as per nearby similar deposits, with additional consideration for the robust assaying (exclusion of the 2016 drillholes) and low variation in pegmatite geometry. Geometry is considered too variable to define "Measured" material at this stage.

Care has been taken to identify areas of highly questionable geometry and lower the classification of such areas in line with geological knowledge. Currently, Indicated, and Inferred material has been classified at Lei.

# Mining Method Selection and Processing

Considering the lack of near surface mineralisation, the steep plunge and planar/lenticular geometry, depth extent, size, grade and continuity of mineralisation, it is considered that underground mining methods will be exclusively used at Lei.

It is likely that the operation will run as a Direct Shipping of Ore (**DSO**) operation, shipping pegmatite material directly, with an added possibility to conduct gravity separation or ore sorting on site to increase the grade of the shipped material.

Non-spodumene based lithium within the metasediments are of insignificant volume and are assumed to be uneconomic to recover utilising currently considered processing methods. This material has been accounted for as dilution where appropriate, and not estimated in non-pegmatite domains.

#### **Exploration Upside**

While the deepest drillholes in the Lei Main pegmatite are significantly reduced in grade and thickness, the geometry of nearby deposits suggests that this may be either a localised pinch-out rather than the end to the orebody, as is observed at shallower depths, or an indication that there is a change to the plunge component of the lenticular geometry that cannot currently be ascertained from the current data. The zone beneath Lei remains an exploration target for future work.

The isolated intersection of mineralised pegmatite in BYLDD019 does not currently add to the Mineral Resource as it is not connected to other drillholes. This intercept will be followed up in future drilling programs.

The Secondary Lei Pegmatite is a second mineralised pegmatite situated sub-parallel to the Primary Lei Pegmatite to the southeast and intersected in 8 diamond holes at shallow depths down to 240m



(260mRL). It remains open at depth with a slight improvement to a relatively low-grade profile. It is a highly persistent planar geometry with an estimated mineralised true thickness of between 2 to 4m. It remains a medium priority exploration target under the hypothesis that a possible widening at depth would yield more favourable mineralisation.

Other isolated but mineralised pegmatite intercepts at Lei lacking known context linking them to the delineated orebodies constitute medium priority targets for follow-up.

# **Exploration Results**

In late 2023, a deep extensional and infill diamond drilling program was undertaken at Lei to test the depth extent and provide confidence in the grade and geological continuity of the mineralisation.

The drilling program comprised seventeen (17) drill holes for ~7,332 metres.

This program resulted in significant intersections of mineralised pegmatite from the diamond drilling which are shown below with full drill hole data included in Table 2 and Table 3. Significant intersections include:

- 50m at 1.83 % Li<sub>2</sub>O from 613m (BYLDD034)
- 39m at 1.55 % Li<sub>2</sub>O from 204m (BYLDD023); and
- 33m at 1.65 % Li<sub>2</sub>O from 642m (BYLDD035)

Table 2: Lithium Plus Minerals 2023 Lei drill hole location

Hole ID	Collar Co-ordinates GDA94 MGA Zone 52			Survey	Data		Pegmatite Intercepts			ntercepts
	Easting	Northing	RL (m)	Azi (°)	Dip (°)	Depth (m)	From	То	Interval (m)	Pegmatite Correlation
BYLDD020	693923	8591243	24	280	-69	600.0	116.11	125.68	9.57	Primary Lei Pegmatite
BYLDD021	693863	8590907	18	315	-70	851.5	750.92	767.21	17.21	Primary Lei Pegmatite
							789.58	802.95	13.37	Primary Lei Pegmatite
							815.22	818.75	3.53	Primary Lei Pegmatite
BYLDD022	693960	8591096	24	289	-70	862.1	298.96	307.00	8.04	Secondary Pegmatite
							788.61	793.08	4.47	Primary Lei Pegmatite
BYLDD023	693723	8591217	17	269	-69	252.7	203.45	244.80	41.35	Primary Lei Pegmatite
BYLDD024	693912	8591151	17	299	-75	863.1	222.41	231.71	9.30	Secondary Pegmatite
							558.22	559.59	1.37	
							564.27	572.29	8.02	
							577.39	593.87	16.48	
BYLDD025	693990	8591241	26	269	-77	323.2	211.00	216.16	5.16	Secondary Pegmatite
BYLDD026	693719	8591218	17	276	-62	204.4	141.37	165.95	24.58	Primary Lei Pegmatite
							173.76	186.63	12.87	Primary Lei Pegmatite
BYLDD027	693717	8591217	17	282	-65	201.5	156.97	174.13	17.16	Primary Lei Pegmatite
BYLDD028	693721	8591218	17	268	-65	219.3	165.88	190.06	24.18	Primary Lei Pegmatite
							196.35	202.51	6.16	Primary Lei Pegmatite
BYLDD029	693663	8591198	16	311	-62	94.7	58.20	78.67	20.47	Primary Lei Pegmatite
BYLDD030	693664	8591197	16	317	-67	186.7	72.89	106.14	33.25	Primary Lei Pegmatite
							110.93	114.43	3.50	Primary Lei Pegmatite
BYLDD031	693744	8591313	19	260	-56	135.5	111.26	121.19	9.93	Primary Lei Pegmatite
BYLDD032	693745	8591314	19	268	-68	171.7	110.04	115.04	5.00	Primary Lei Pegmatite
BYLDD033	693711	8591244	20	310	-62	198.6		•	NS	I
BYLDD034	693960	8591096	24	292	-66	680.14	268.46	276.46	8.00	Primary Lei Pegmatite
							498.52	520.40	21.88	



							611.79	665.19	53.40	Lei Pegmatite
BYLDD035	693865	8590909	19	317	-62	699.8	640.10	675.30	35.20	Lei Pegmatite
BYLDD036	693872	8590970	20	309	-70	786.5	710.64	727.68	17.04	Lei Pegmatite
							732.07	768.71	36.64	Lei Pegmatite

Table 3: Summary of Lei drill hole data and received assay results.

Hole ID	Collar Co-ordinates GDA94 MGA Zone 52			Significant	Mineralised	d Pegmatite	
	Easting	Northing		From (m)	To (m)	Interval (m)	Li2O (%)
BYLDD020	693923	8591243		116.11	125.68	9.57	0.11 %
BYLDD021	693863	8590907		750.92	764.96	14.04	0.58 %
			and	790.00	792.00	2.00	1.60 %
			and	795.00	797.00	2.00	1.76 %
BYLDD022	693960	8591096		298.96	306.00	7.04	1.06 %
			and	791.00	793.08	2.08	0.46 %
BYLDD023	693723	8591217		204.00	243.00	39.00	1.55 %
BYLDD024	693912	8591151		224.00	229.00	5.00	0.62 %
BYLDD025	693990	8591241		NSI			
BYLDD026	693719	8591218		150.00	156.00	6.00	1.09 %
			and	161.00	165.00	4.00	1.03 %
			and	174.00	178.00	4.00	1.15 %
			and	180.00	183.00	3.00	0.38 %
BYLDD027	693717	8591217		158.00	173.00	15.00	1.54 %
BYLDD028	693721	8591218		173.00	186.00	13.00	1.41 %
BYLDD029	693663	8591198			N	SI	
BYLDD030	693664	8591197		80.0	106.14	26.14	1.00 %
			and	110.93	114.00	3.07	1.12 %
BYLDD031	693744	8591313		113.00	120.00	7.00	0.74 %
BYLDD032	693745	8591314		NSI			
BYLDD033	693711	8591244		NSI			
BYLDD034	693960	8591096		613.00	663.00	50.00	1.83 %
BYLDD035	693865	8590909		642.00	675.35	33.35	1.65 %
BYLDD036	693872	8590970		716.00	727.00	11.00	1.24 %
			and	740.00	736.00	23.00	1.32 %

(0.3% Li<sub>2</sub>O lower cut-off, no upper cut-off and maximum internal waste of 2.0 metres)



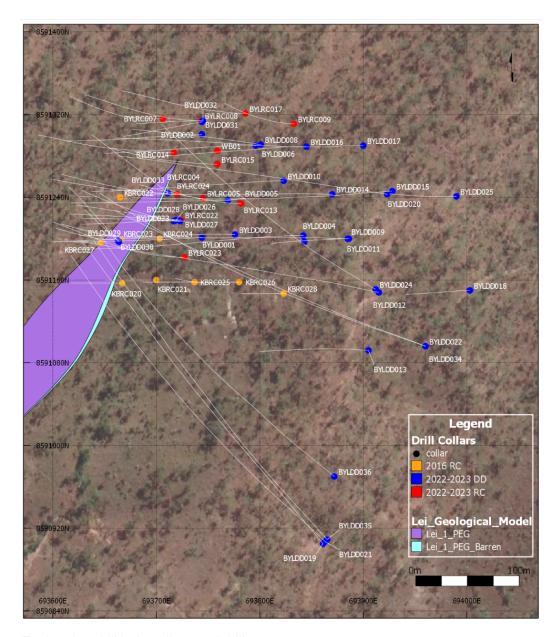


Figure 5: Exploration drill hole collars and drill traces.

Table 4: Summary of all Lei drill hole data used in the MRE.

	Collar Co-ord MGA Z	inates GDA94 one 52	Survey Data				
Hole ID	Easting	Northing	RL (m)	Azi (°)	Dip (°)	Depth (m)	
BYLDD001	693744	8591201	24	268	-60	235.8	
BYLDD002	693744	8591301	23	268	-60	257.7	
BYLDD003	693776	8591204	23	270	-60	311.8	
BYLDD004	693842	8591203	34	270	-60	424.7	
BYLDD005	693769	8591237	30	270	-60	275	
BYLDD006	693796	8591290	27	270	-60	279.7	
BYLDD008	693801	8591291	30	278	-64	279.7	



	Collar Co-ordi MGA Z		Survey Data				
Hole ID	Easting	Northing	RL (m)	Azi	Dip	Depth	
	Lasting	Northing	IXE (III)	(°)	(°)	(m)	
BYLDD009	693885	8591200	27	268	-60	150.7	
BYLDD010	693823	8591256	26	271	-60	354.3	
BYLDD011	693886	8591200	24	271	-60	495.5	
BYLDD012	693915	8591148	34	281	-60	531.6	
BYLDD013	693905	8591092	32	273	-60	197.4	
BYLDD014	693870	8591243	35	271	-68	462.7	
BYLDD015	693928	8591246	35	266	-69	606.7	
BYLDD016	693845	8591289	34	270	-65	339.6	
BYLDD017	693900	8591290	24	270	-70	546.3	
BYLDD018	694003	8591150	26	270	-70	171	
BYLDD019	693861	8590905	35	319	-63	756.6	
BYLDD020	693923	8591243	24	280	-69	600	
BYLDD021	693863	8590907	23	315	-70	851.5	
BYLDD022	693960	8591096	24	289	-70	862.1	
BYLDD023	693723	8591217	17	269	-69	252.4	
BYLDD024	693912	8591151	24	299	-75	863.1	
BYLDD025	693990	8591241	26	269	-77	323.2	
BYLDD026	693719	8591218	17	276	-62	204.4	
BYLDD027	693717	8591217	17	282	-65	201.5	
BYLDD028	693721	8591218	17	268	-65	219.3	
BYLDD029	693663	8591198	16	311	-62	94.7	
BYLDD030	693664	8591197	18	317	-67	186.7	
BYLDD031	693744	8591313	19	260	-56	135.5	
BYLDD032	693745	8591314	17	268	-68	171.7	
BYLDD033	693711	8591244	19	310	-62	198.6	
BYLDD034	693960	8591096	24	292	-66	680.1	
BYLDD035	693865	8590909	19	317	-62	699.8	
BYLDD036	693872	8590970	20	309	-70	786.5	
BYLRC004	693711	8591244	17	270	-60	168	
BYLRC005	693745	8591239	18	270	-75	107	
BYLRC007	693706	8591316	19	270	-60	168	
BYLRC008	693743	8591314	19	270	-60	186	
BYLRC009	693833	8591311	21	270	-65	144	
BYLRC013	693782	8591234	19	270	-60	150	
BYLRC014	693717	8591283	18	272	-58	210	
BYLRC015	693759	8591272	18	271	-61	188	
BYLRC017	693786	8591321	19	270	-60	195	
BYLRC022	693724	8591218	17	270	-65	198	
BYLRC023	693727	8591182	17	270	-65	228	
BYLRC024	693720	8591243	17	270	-65	216	
KBRC022	693665	8591240	25	270	-60	88	
KBRC023	693666	8591199	2	270	-60	118	
KBRC024	693703	8591200	21	270	-60	172	



	Collar Co-ordinates GDA94 MGA Zone 52		Survey Data				
Hole ID	Facting	Northing	DL (m)	Azi	Dip	Depth	
	Easting	Northing	RL (m)	(°)	(°)	(m)	
KBRC027	693646	8591196	26	270	-60	52	

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

### **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 the report to which this statement is attached that relates to Mineral Resources of the Lei pegmatite and is based on information compiled or reviewed by Mr Stuart Hutchin, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Stuart Hutchin is a fulltime employee of Mining One Consultants and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Stuart Hutchin consents to the inclusion in this announcement of statements based on this information 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.



JORC, 2012 Edition: Table 1 report

#### Section 1 Sampling Techniques and Data

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

rı	ТΔ	rı	

# **JORC Code explanation**

#### Commentary

#### Sampling techniques

- 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 down hole 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.

 Multiple campaigns of both RC drilling and sampling were undertaken at the Lei project in 2016, 2022 and 2023 and utilised in the estimation of the Mineral resource. 9 RC holes were drilled by Kingston Resources, with 12 RC and 35 Diamond holes drilled by Lithium Plus in 2022 and 2023.

#### Diamond Drilling (2022-2023)

- HQ core was selected as the basis for robust sampling due to the coarse nature of mineralogy in the target lithology, including deep holes.
- Drill core was collected into trays, marked up with depth measurements, and secured as per industry standards before being taken to a core processing facility in Darwin.
- After logging, sampling was conducted generally on 1 metre intervals of HQ Core to maintain representative grades across ore intercepts observed taking sample heterogeneity into account. sample Shorter intervals occur down to 0.3m to align with pertinent geological contacts.
- The drillholes were sampled on intervals based on observed mineralisation potential (Pegmatite presence and spodumene observed visually or under UV light), including the consideration of lithological contacts, structure and pertinent zoning where observed.
- 1m interval sampling persisted into the barren host rock proximal to the pegmatite for a minimum of 2m in the up and down hole directions.
- The core was cut in half by a diamond core saw with care taken to sample a consistent side of the core,



Criteria	JORC Code explanation	Commentary
		approximately 10mm off the orientation line.
		<ul> <li>Historic RC program (2016)</li> <li>RC drilling was sampled using a 4¾-inch face bit.</li> <li>RC drilling techniques returned samples through a fully enclosed cyclone setup with sample return routinely collected in 1 m intervals approximating 20 kg of sample. 1 m interval RC samples were homogenised and collected by a static riffle splitter to produce a representative 2-3 kg subsample (~10% of sample weight).</li> <li>1m Sampling was conducted across the pegmatite interval and continued into the wall rock for 2 or more meters.</li> </ul>
Drilling techniques	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> <li>2022-2023 Diamond and RC Drilling</li> <li>Diamond drilling was conducted from surface by the drilling contractor, DDH1 Pty Ltd using an DE 710 track mounted Drill Rig and a Sandvic DE80 RC DD dual purpose Rig. with HQ3 (63.5mm) standard tube or triple tube (when competency is a concern.)</li> <li>Core was oriented using a Reflex EZ-TRAC core orientation tool.</li> <li>The oriented core line is recorded for length and confidence preserved during sampling for future use.</li> </ul>
		<ul> <li>2016 RC program</li> <li>The 2016 RC Drilling was conducted by Kalgoorlie based WDA drilling services Pty Ltd.</li> <li>Rig type was not recorded.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the</li> </ul>	<ul> <li>2022-2023 Diamond Drilling</li> <li>DDH Core recoveries are logged and checked against drillers core blocks, with markup of core loss by the logging geologist.</li> </ul>

- representative nature of 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.
- logging geologist.
- Current core recoveries are within 95% of expected with nothing recorded concerning the amount and consistency of material recovered.
- A Tripple tube configuration was selected to maximise the



		MINERALS
Criteria	JORC Code explanation	Commentary
		sample recovery during diamond drilling.  2022 - RC Drilling  RC drill recoveries are estimated to be above 90% based on visual estimate of the volume of sample.  RC Sample conditions were logged with a visual check for recovery, moisture, and contamination.  A gate mechanism on the cyclone prevented intermingling between intervals and protected the Integrity of samples. After visual checks, the cyclone and splitter were also regularly cleaned, using compressed air or highpressure water.  Collars were sealed to prevent sample loss with dry drilling employed to minimise sample ingress.
		Sample weights were rarely recorded/reported with recoveries estimated visually from volume of primary sample recovered. The configuration of the rig set-up provides for an enclosed
		sample mechanism and clean-out protocol to prevent sample loss, sample inter-

Logging

- Whether core and chip samples geologically and have been geotechnically logged to a level of detail appropriate to support Resource Mineral 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.
- Detailed geological logging was carried out on all RC and DDH drill holes for the entire hole length at the LPM logging facility on site.

results.

mingling and contamination. Holes are preferably drilled dry to prevent poor recoveries and contamination and wet intervals are routinely logged and compared against assay

RC logs document recoveries within 90% of expected with nothing recorded concerning the amount and consistency of material recovered.

Logging was conducted by suitably qualified geologists recorded lithology, mineralisation, mineralogy, alteration, weathering, Veining, structure (in diamond holes, some oriented) colour, and other sample features appropriate for this deposit



Criteria	JORC Code explanation	Commentary
		<ul> <li>style.</li> <li>Logging information is stored in spreadsheets utilising some standardised validation and data entry rules.</li> <li>Pegmatite sections are also checked under a UV light for spodumene identification as necessary, providing additional qualitative information.</li> <li>DDH core is stored in plastic core trays while RC chips are stored in plastic RC chip trays.</li> <li>RC chip trays and DDH core trays are photographed, and the files are both saved on Lithium Plus server. Recent DDH imagery is also loaded into the Imago platform (a cloud-hosted core photo service with 3D photo registration) for additional security and analysis.</li> <li>Chip trays from the 2016 RC program were not recovered for review.</li> </ul>
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core	Diamond Drilling  • The pegmatite intervals (and

- 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 samples.
- Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.
- Whether sample sizes appropriate to the grain size of the material being sampled.

- 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.
- Sample intervals were constrained by lithology and alteration boundaries and were kept between а 0.3m minimum of and maximum of 1m. The core was cut in half by a diamond core saw by experienced LPM personnel,
- Care was taken to sample a consistent side of the core. The other half was retained in



Criteria	JORC Code explanation	Commentary
----------	-----------------------	------------

the core shed for further work and reference.

- ½ HQ core size is considered by LPM to be the minimum acceptable standard for representivity of pegmatite samples given its coarse grainsize.
- Sampled core was transported to North Australian Laboratories (NAL) in Pine Creek for sample analysis.

#### 2022 RC Sampling

- RC samples were collected from the cone splitter at the rig and put in calico bags for dispatch to laboratory.
- The RC sample for assay is homogenised and split from the rig mounted cyclone. The duplicates are also taken directly from the cyclone split. The split is the right percentage (i.e., ~25kg of primary material with 10-15% split sample material)

#### 2016 RC Sampling

- RC samples for analysis collected at 1 m intervals in the field. 3-4 kg sub-sample (approximating 10-20% of the original sample) weight is obtained from the rig mounted cone splitter in numbered calico bags.
- The remaining 20-30kg sample is collected into large pre-numbered plastic bags and retained at the drill pad until assay results have been received. A chip sample is sieved from this material and retained in chip trays for



Criteria	JORC Code explanation	Commentary
----------	-----------------------	------------

geological logging and storage.

- It has been reported that all material was sampled and returned - usually dry and wet holes were redrilled to prevent bias from poor recoveries and contamination.
- A total of 4507 RC samples were obtained from the 2016 field program. A total of 1,193 selected RC chip samples from the target mineralised downhole intervals were dispatched via commercial transport services from Bynoe to either Intertek laboratories located in Darwin or Perth: both commercial accredited laboratories. The use of commercial laboratory facilities for the preparation of samples is industry standard practice and typically involves preparation by drying, crushing, riffling, and pulverizing to a homogeneous sample pulp.

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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.

# **2022-2023 Diamond and RC Drilling** QA/QC *Methodology*

- 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 1ppm and 5000 ppm respectively.
- During the drilling program a 3000 ppm Li trigger was set to process that sample via a fusion method. The fusion



JORC Code explanation Commentary

Criteria

method was - a 0.3 g subsample 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 LPMimplemented quality control procedures include:
- 1 in 25 samples are certified lithium ore standards, 1 in 40 samples are either field duplicates or coarse crush duplicates and 1 in 40 are coarse blanks to test contamination.
- LPM used 3 standards based on Bynoe Region pegmatites between 2300ppm and 10200ppm Li.
- LPM used blanks based on granite chips certified at 38 ppm Li.

Sample type	number	percentag
Oreas-750	20	1.43
Oreas-751	08	1.28
Oreas-753	07	1.21
Total standards	55	3.92
Oreas-C27f (Blanks)	32	2.28
Field dups	10	0.71
Coarse crush dups	19	1.35
Total QA/QC	104	8.83

4 drillholes comprising 182 samples were sent for reassay (Umpire Assay) at a second lab to test accuracy. This represents 14% of samples being re-assayed.

#### QA/QC Results

 All three standards, OREAS-750,751 and 753 performed within 2 standard deviations with no bias.



Criteria JORC Code explanation Commentary

- The coarse blanks showed signs of contamination. In early drilling, the submitted weight was only a quarter of the sample weight of drillhole samples. This discrepancy between the mass of the blanks and of the samples has likely exaggerated the contamination. The coarse blank sample size was subsequently increased to match the mass of routine samples. Nevertheless. evidence of contamination has continued to be exhibited by coarse blank results. The final coarse blank shows considerable contamination following a very high Li assay of >14,000 ppm.
- The amount of contamination is far below grade cut-offs and although measures are being taken to address the issue, at such levels it is not interpreted to materially affect the resource reported here.
- Field duplicates showed good repeatability at low grades with weaker correlation at high grade. This is interpreted to be due to the nugget effect of coarse spodumene in lithium-rich samples.
- Coarse crush duplicates and lab repeats performed well.
- Umpire Assay analysis of the 182 pulps from 4 holes carried out between Intertek laboratories and NAL (Pine Creek) did not show any bias between the laboratories.

#### 2016 RC Drilling QA/QC Method

 In the four holes intersecting mineralisation at Lei, Kingston submitted RC field duplicates at a rate of 1 in every 25 samples to monitor homogeneity of RC drilling.



Criteria	JORC Code explanation	Commentary

Duplicates were typically spear sampled from the primary sample bag.

- QA/QC samples in the form of Certified lithium (and Tantalum) standards (CRM Reference: GTA-01 & GTA-02) were also inserted at a rate of 1 in 50 samples.
- Selected samples were assayed at Intertek Genalysis Darwin and/or Perth, both NATA accredited laboratories.
- A sub-sample of the pulp is digested via sodium peroxide fusion (zirconia crucibles) and hydrochloric acid to dissolve the melt and analysed via Inductively Coupled Plasma Mass Spectrometry (ICP-MS: FP1MS) and Optical (Atomic) Emission Spectrometry (ICP-OES: FP1/OE) methods for the following elements: As, Be, Cs, Fe, K, Li, Nb, Rb, Sn, Sr, Ta, Th and U (20ppm, 1ppm, 0.1ppm, 0.01%, 1ppm, 2ppm, 0.5ppm, 0.01%, 20ppm, 0.1ppm, 0.1ppm, 0.1ppm respectively). The lower detection for Li by this method is 1 ppm.
- A barren flush is inserted between samples at the laboratory.
- Intertek utilise standard internal quality control measures including the use of internal Standards, Control Blanks, and duplicates/repeats at a rate of 1 in 16 samples.

#### QA/QC Results

- All three GTA-01 samples failed for lithium at approximately 3 standard deviations above the certified value of 3132 ppm, suggesting a bias toward over-reporting Li concentrations.
- The two GTA-02 samples passed within the 2 standard deviations of its certified value of 1715 ppm.
- Field duplicates showed good repeatability at low grades with weaker correlation at high grade. This is interpreted to be due to the nugget effect of coarse spodumene in lithium-rich samples.

# Verification of sampling and assaying

- 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.

# 2022-2023 Drilling

 Detailed logging of the core is entered directly into excel spreadsheets on a logging computer, before being compiled into a central spreadsheet. A master spreadsheet is separated from the generic data entry process



Criteria	JORC Code explanation	Commentary

 Discuss any adjustment to assay data

- and reserved for validated data only.
- Reviewed and altered data from any entry is rolled back manually into the central spreadsheet.
- 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.
- Upon return of assays, verification of results by checking against logging of Pegmatite and spodumene, and analysis of Fe values and K/Rb ratios used to characterise barren and fertile pegmatites and pegmatite zones.
- Metallic lithium percent was multiplied by a factor of 2.153/10000 to report Li ppm as Li<sub>2</sub>O%.
- Spatial review of data is carried out periodically to ensure validity and maintenance of both datasets.
- Assay performance was audited using the submitted QA/QC sampling. The G400I assay method (4-acid ICP-OES/S) is the one used for the Mineral Resource.

### 2016 RC Drilling

- The assay data was validated against logging for all 2016 RC holes and were directly input onto electronic spread sheets and validated by the database manager.
- A complete record of historical logging, sampling and assays were stored within an Access Database by previous owners Kingston, including digital assay sheets obtained from Intertek.
- Kingston Resources routinely submitted RC field duplicates collected in the field at a rate of 1 in every 20 samples to monitor sampling methodology and homogeneity of RC drilling.
- Duplicates were typically spear sampled from the primary sample bag. Most duplicates were spear sampled.
- QA/QC samples in the form of Certified lithium (and Tantalum) standards (CRM Reference: GTA-01 & GTA-02) were also inserted into the field sample stream at a rate of 1 in 100 samples.
- Selected samples were assayed at Intertek Genalysis Darwin and/or Perth, both NATA accredited



		MINERALS
Criteria	JORC Code explanation	Commentary
		<ul> <li>No other adjustments to assay data were undertaken.</li> <li>Reported assay results are calculated at a 0.4% Li<sub>2</sub>O cut-off with allowances for a maximum 2m internal dilution.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>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.</li> <li>The GPS collar coordinates have a high variability in Northing and Easting (±10m) in RL, especially 2016 holes (±15m).</li> <li>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.</li> <li>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.</li> <li>The de-survey method used during the modelling process is the Leapfrog Spherical Arc approximation to maximise positional accuracy.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> </ul>	<ul> <li>Drill spacing is determined by the stage of exploration of the prospect.</li> <li>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.</li> </ul>

been applied.

Whether sample compositing has

- 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



Criteria	JORC Code explanation	Commentary
		of the pegmatite has been shown to be high nugget due to grainsize, but consistent over large distances. The hole spacing is deemed adequate to estimate mineral grades with applied classification.  • 1m compositing has been conducted within each lithological domain to ensure a standardised representation of grade.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Drilling is conducted at close to a maximum possible angle to the pegmatite orientation from surface. The sub-vertical geometry of the Lei pegmatite dictates that standard diamond drilling methods cannot intercept it perpendicularly and that all intercepts from holes drilled at surface have a true thickness considered.</li> <li>The high nugget of the pegmatite is somewhat mitigated by the increased sample length of low angle intercepts.</li> <li>No sampling bias is considered to have been introduced due to the nature of the observed mineralogy of the pegmatite body.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Drill core and chip samples for assay is collected by LPM personnel from site and transported to the core logging facility in Darwin daily.</li> <li>The logging facility is within a secure industrial premises, within a gated and fenced complex.</li> <li>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.</li> <li>Returned Pulps are stored at the LPM Darwin facility.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits have been carried out.

**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 status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures,	<ul> <li>The Bynoe project is centred around 15 km south of Darwin (at 12°40'S latitude, 130° 45'W longitude). The drilling reported here took place at the Lei</li> </ul>



Criteria	IOPC Code explanation	Commontary
Criteria	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.	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	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The NT Geological Survey conducted a regional assessment of the field, published in 2004 (NTGS Report 16, Frater 2004).</li> <li>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 programs 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.</li> <li>First pass drilling on the mentioned prospects was conducted by Kingston Resources under the current tenure in 2017.</li> </ul>
Geology	Deposit type, geological setting, and style of mineralisation.	<ul> <li>The Tenements listed form part of LPM's Bynoe Project which is in the Bynoe Pegmatite Field (NTGS Report 16) which extends for approximately 70km in length and up to 15km in width.</li> <li>The pegmatites occur as clusters, in groups or a single body hosted within the metasedimentary rocks (turbiditic) of the Burrell Creek Formation and Welltree Metamorphics proximal to the Two Sisters Granite (ca 1850). The NTGS have interpreted the pegmatite occurrences to have evolved from the S-type Two Sisters Granite giving an age of ~1850 Ma.</li> <li>Individual pegmatites range</li> </ul>



Criteria	JORC Code explanation	Commentary
		from narrow metre-scale veins to broad lozenge-shaped bodies several tens of meters in width and up to 500m in length, and generally conform to the regional schistosity (structural fabric).  • The Bynoe pegmatites are characteristically 'LCT' type (Lithium-caesium-tantalum). It has been reported many of the pegmatite occurrences exhibit highly weathered clay-quartz saprolite surface expressions to significant depth. Weathering has likely stripped the pegmatite of the key lithium mineral spodumene (and possibly Tantalum) requiring deeper drilling to test for lithium grades.  • In drill core, the fresh pegmatite is composed of extremely coarse spodumene (20–30%), quartz, albite, microcline, and muscovite (in decreasing order of abundance), along with accessory amblygonite, apatite, cassiterite, ilmenite, rutile, and rare columbite, tantalite, tourmaline (elbaite), fluorite, topaz, and beryl (NTGS, 2017)  • Fresh pegmatites are composed of coarse-grained spodumene, quartz, albite, microcline, and muscovite. Spodumene is the predominant lithium bearing phase.  • Mineralisation is usually hosted in large and massive vertical to sub-vertical pegmatitic sills.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above seal level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	Summary drilling statistics:  f • 56 holes total drilled at Lei including:  e • 29 intersecting mineralisation with assays used in the Resource Estimation  e • 9 Pegmatite intersections informing geometry.  f • 5 sterilising holes delineating NE extent.  Drilling Campaigns:  • 2016 RC Holes – 924m  • 2022-2023 RC Holes – 2,158m



hanging-wall position.

geometry of the pegmatites, results in intersection angles from ~45° down to ~35° from the

The general orientation of the Lei Pegmatite is known so indicative true thicknesses may be calculated. Intercepts added to the geological model may

Criteria	JORC Code explanation	Commentary
	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> <li>1466 assays were taken during the drilling programs targeting the Lei pegmatite and proximal wall-rock, 1023 of which were within the target pegmatite lithology.</li> <li>Additional assays exist surrounding other pegmatite material not addressed in this resource estimate.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Any sample compositing reported here is calculated via length weighted averages of the 0.3 to 1 m assays. Length weighted averages are an acceptable method because the density of the rock (pegmatite) has high consistency.</li> <li>0.3% Li<sub>2</sub>O 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).</li> <li>There has been no top-cut to high grade with all 1m samples below 4.1% Li<sub>2</sub>O.</li> <li>No metal equivalent values have been used or reported (from LPM)</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>The Average geometry of the orebody is a steeply dipping plane with an average Dip and dip direction of 87° -&gt; 123°.</li> <li>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.</li> <li>Holes are drilled at a plunge of 60° or greater, which when combined with the steep geometry of the pegmatites.</li> </ul>

known').



Criteria	JORC Code explanation	Commentary
		have true thicknesses estimated as minimum distance across the intercept accounting for local variation in orientation.
Diagrams	<ul> <li>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.</li> </ul>	Not Relevant
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.	Not Relevant
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.	Not Relevant
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Immediate further work at Lei will focus on infill drilling to improve the classification of the resource.</li> <li>Mineralised pegmatite intercepts at depth indicate some possibility of continued mineralisation with increasing depth.</li> </ul>



considered including multiple

bifurcations of the pegmatite

# **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data is collected using logging and sampling spreadsheets which are validated manually on a per hole basis. The valid data is then integrated into a 'Master' dataset in excel format before use in modelling and estimation.</li> <li>Historic RC and diamond drilling were compiled from 2 older datasets in excel format.</li> <li>Validation steps are also conducted within the Leapfrog Geo software, with validation of collar location, survey checks including visual confirmation of realistic hole paths, duplicate rows, overlapping intervals, checks for invalid numeric data, and checks for invalid categorical data.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>A site visit was conducted by an experienced geologist who reported back to the competent person who was unavailable due to illness.</li> <li>The site visit included inspection of core processing facilities, offices, and active drilling sites.</li> <li>No critical issues were identified with processes or procedures regarding drilling, logging, sampling, or handling of core.</li> <li>LPM activities were deemed appropriate for the support of a mineral resource estimate at Lei.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geologic interpretation consisted of linking together pegmatite intervals from drilling. Intervals generally lined up well and the interpretation is considered robust with good continuity between drillholes.</li> <li>The Resource Estimate is bound by the Geology interpretation and is estimated only inside the pegmatite wireframes.</li> <li>Alternate interpretations were considered including multiple</li> </ul>

both of grade and geology.



Criteria	JORC Code explanation	Commentary
		body; however, these were discarded during 2023 Q3-Q4 drilling results.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>The mineralisation is contained in a single steeply dipping pegmatite oriented at 87°/123° (Dip/Dip-direction).</li> <li>Persistent zones of internal waste have been identified in the shallow and deep parts of the pegmatite with smaller rafts of country rock also exist that do not persist between drillholes.</li> <li>A Barren zone with reduced spodumene abundance variably exists on the margins of the pegmatite body and larger waste rafts with a higher persistence on the hanging wall edge.</li> <li>The Pegmatite ranges in thickness from &lt;1m to ~36m in true thickness and extends approximately 230 metres from the tenement boundary in the SW to a pinch-out geometry in the NE.</li> </ul>
		<ul> <li>The surface expression of the pegmatite coupled with observations of similar deposits in the area indicates significant thickening to the south-west.</li> </ul>
		<ul> <li>Mineralised intercepts exist from ~50mRL below the weathering profile, to 700mRL at depth.</li> </ul>
		<ul> <li>The deepest intercepts exhibit continuation of spodumene mineralisation, however with a reduced true thickness.</li> </ul>
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer	<ul> <li>Grade estimation of Li<sub>2</sub>O (calculated from Li Assays) attributable to Spodumene using Ordinary Kriging (OK). The estimate was conducted within the Leapfrog EDGE software.</li> <li>Nugget was set at 0.5 after analysis of downhole</li> </ul>



Criteria	JORC Code explanation	Commentary
----------	-----------------------	------------

- assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of byproducts.
- Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- variograms. This is in line with the large mineral grainsize in parts of the deposit reaching 10s of cm diameter.
- No selective mining units are assumed in this estimate.
- Grade was estimated within the pegmatite, ignoring any nonspodumene Li grade within the metasediments of the wall rock and barren continuous internal waste domains due to the assumption that spodumene Li minerals are unrecoverable. and that Pegmatite associated Lithium content is Spodumene. The barren pegmatite margin was estimated separately from the high-grade core mineralisation using a hard boundary as lowgrade assays are theorised to be a common factor at the edge of the orebody.
- The block model was constructed with a parent block size of 10m (X) x 10m (Y) x 10m (Z) with sub-blocking by lithology domains to a minimum size of 1.25m x 1.25m x 2.5m, respectively.
- Variograms were set using the major trends of the orebody at 87° – 123° with 80° pitch.
- The estimate was done with variable anisotropy utilising the geometry of the mineralised pegmatite domain.
  - Pass 1: search axes of 25m, 20m and 5m with a minimum of 5 samples and a maximum of 25.
  - Pass2: search axes of 50m, 40m and 10m with a minimum of 4 samples and a maximum of 20.
  - Pass 3: search axes of 200m, 160m and 20m with a minimum of 3 samples and a maximum of 15.
- Comparison estimates were



Criteria	JORC Code explanation	Commentary
		also conducted using Inverse Distance squared (ID2) to provide an alternative. With a result returning <0.1% difference to the OK model.  Lithium grades were not capped in the estimation as minimum and maximum values were not considered to be outliers.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	reported on a dry basis.
Cut-off parameters	<ul> <li>The basis of the adopted cut-ofing grade(s) or quality parameters applied.</li> </ul>	
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	mineralisation, the steep plunge and planar/lenticular geometry, depth extent and size as well as the grade and continuity of mineralisation, it is considered that underground mining methods will be exclusively used at Lei.  No other assumptions have been made.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the	will run as a DSO of pegmatite ore, with the possibility of



Criteria	JORC Code explanation	Commentary
	process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>applied on site to increase the grade of the shipped material.</li> <li>Non-spodumene based lithium within the metasediments is assumed to be un-recoverable, so lithium grades used for estimation refer to lithium within spodumene only.</li> <li>Rafts of waste metasediments exist within the lei orebody, with the most continuous interpreted as waste domains, however small rafts have not been individually delineated, with contained Li values set to 0 and allowed to dilute the surrounding resource where such intervals are logged.</li> </ul>
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a green-fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No environmental assumptions have been made during the MRE.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size, and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc),</li> </ul>	<ul> <li>Density measurements were collected on 5 holes at Lei for the entire mineralised section and into the wall-rock utilizing the Archimedes method using a fit for purpose machine and scale. Analysis of the data concludes that the density of both mineralised and unmineralised pegmatite is approximately 2.71g/cm³.</li> <li>A relationship between grade and mineralisation exists and with more data collected, a</li> </ul>

spaces (vugs, porosity, etc),



Criteria	JORC Code explanation	Commentary
	<ul> <li>moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>more accurate SG model may be produced, but with only 5 holes measured.</li> <li>For the resource estimate, it was deemed appropriate to use the set average SG for the pegmatite volume in the block model at 2.71g/cm³.</li> <li>All data is within fresh rock and there is no economic mineralisation within weathered material.</li> <li>Samples were not waxed, however, material below the weathering profile has very low porosity.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity, and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	Ore classifications reflect the level of certainty in the deposit areas, with the level of orebody continuity, grade continuity and drill spacing considered for each class throughout the orebody. Classification domains have been defined manually, but with consideration of drill intercept spacing of 25, 50, and 100m and greater than 100m as Measured, Indicated, Inferred and unclassified material respectively. Greater uncertainty due to unresolved changes to geometry serve to lower the resource class, including in areas with closer drill spacing.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	This MRE has not been audited by an external party.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative	<ul> <li>The relative accuracy of the MRE is reflected in the reporting of Mineral Resources as per the guidelines of the 2012 JORC Code.</li> <li>This statement relates to global estimates of Tonnes and grade.</li> <li>No production has occurred at Lei.</li> </ul>



Criteria	JORC Code explanation	Commentary
	accuracy and confidence of the estimate.  • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.  • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

#### **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 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 northnortheast 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

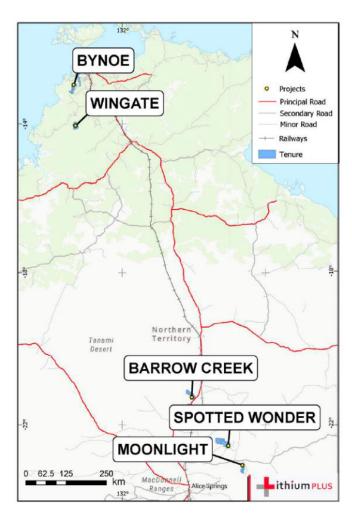
Located in the Northern Arunta pegmatite province, 300km north of Alice Springs. Historic tin and tantalum production and the presence of spodumene in nearby Anningie Pegmatite field suggest lithium potential.

#### 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.





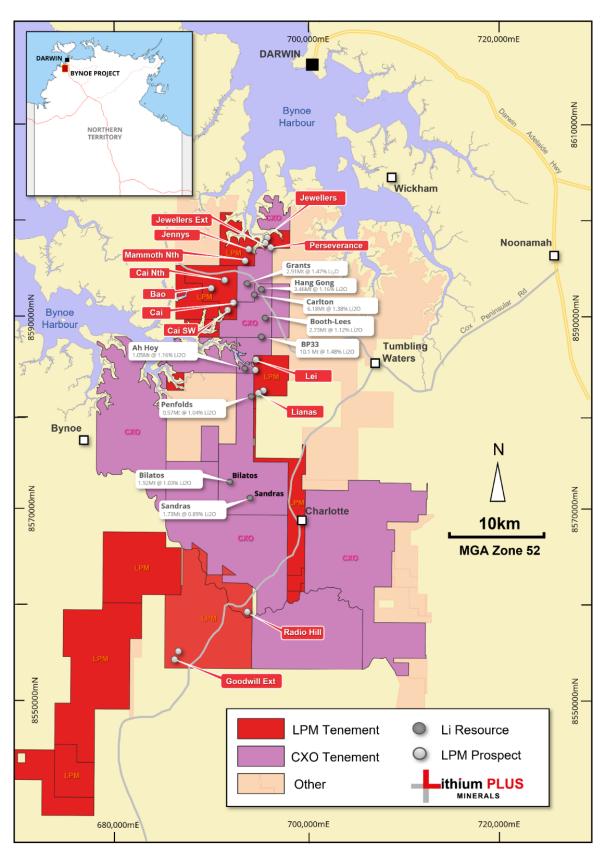


Figure 6: Bynoe Project Location map and pegmatite prospects.