

5<sup>th</sup> December 2017 ASX via Electronic Lodgement

# Plymouth Minerals

ACN 147 413 956 ASX.PLH

Developing the world class San Jose lithium-tin deposit in Europe.

#### Issued Capital:

151,340,221 ordinary shares 25,000,000 performance shares ( 19,525,000 share options

#### Directors:

Non-Executive Chairman Kevin Tomlinson Managing Director Adrian Byass Non Executive Directors Humphrey Hale Dr Eric Lilford Christian Cordier

Company Secretary and Chief Financial Officer Robert Orr

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# UPDATED MINERAL RESOURCE ESTABLISHES SAN JOSE LITHIUM-TIN DEPOSIT AS ONE OF THE LARGEST IN EUROPE

#### Highlights

- 21% increase in tonnes at equivalent grade
  - 140% increase in tonnes in the Indicated resource category
- Resource contains an estimated +1.6M tonnes of Lithium Carbonate Equivalent (LCE) – one of the largest in Europe
- Proven, simple process flow-sheet and metallurgy to produce saleable Lithium Carbonate (LC)
- Deposit is outcropping, open along strike and at depth.
  - Expected to improve recently released positive Scoping Study outcome and will form basis of a Feasibility Study in 2018

Plymouth Minerals Limited (ASX: PLH) (Plymouth or the Company) is pleased to announce in accordance with the JORC Code an updated lithium-tin Mineral Resource at the San Jose Lithium-Tin Project (San Jose) in Spain. Lithium (Li) at San Jose is hosted in mica minerals with tin (Sn) hosted in associated quartz. The lithium micas at San Jose are hosted in a massive replacement style deposit, with cross-cutting tin-bearing quartz veins. This is a common lithium deposit style as seen in several other large lithium-tin deposits in Europe which are historic lithium producers. Lithium-bearing micas are an established source of lithium which is able to be directly converted to lithium carbonate (LC) on site, bypassing the requirement to trade in concentrate with off-site convertors. San Jose is open along strike and at depth and is only constrained by drilling (Figure 1).



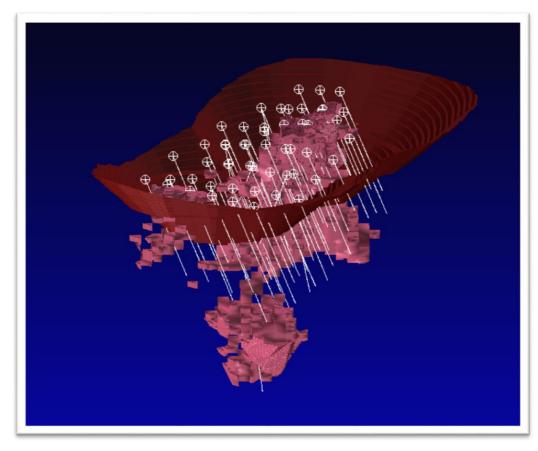


FIGURE 1: MINERALISATION (1.0% LI<sub>2</sub>O OR GREATER) SHOWN AGAINST DRILLING AND OPEN PIT OPTIMISATIPON FROM THE OCTOBER 2017 SCOPING STUDY.

Plymouth and its 50/50 Spanish Joint Venture partner, Valoriza Mineria (VM), intend to produce battery grade lithium carbonate (LC) on site. VM is a subsidiary of +A\$ billion market capitalisation, construction and engineering company Sacyr S.A.

Europe's only commercial lithium production is currently sourced from Spain and Portugal. A positive Scoping Study on San Jose was recently released (ASX release 18<sup>th</sup> October 2017). The study refreshed a historic, pre-JORC Feasibility Study produced by Tolsa S.A. This Feasibility Study returned a positive result covering the production of lithium carbonate on site using open pit mining and the same proven process technology. Plymouth is now highly advanced and very well placed to upgrade this study to a JORC Feasibility Study which can be completed by late 2018.

Plymouth recently completed a 970m diamond drilling programme to enhance the results of the Maiden JORC resource (ASX release May 25<sup>th</sup> 2017). The drilling and assay database for San Jose now comprises of 56 holes for approximately 12,120m of drilling including 5,196m of diamond drilling.



The revised JORC resource is now;

The combined Indicated and Inferred Mineral Resource at a 0.10% Li cut-off is reported as;

# 112.0Mt @ 0.61% Li<sub>2</sub>O (lithium oxide) and 0.02% Sn (tin)

The combined Indicated and Inferred Mineral Resource at a 0.35% Li cut-off is reported as;

# 25.2Mt @ 0.9% Li<sub>2</sub>O (lithium oxide) and 0.03% Sn (tin)

This has resulted in increased tonnage, grade and resource category confidence compared to the May 2017 JORC resource as reported at a 0.1% lithium cut-off. The December 2017 Mineral Resource estimate for San Jose is shown below in Table 1 and Table 2;

Classification	Tonnes (Mt)	Li (%)	Li₂O (%)	Sn (%)
Indicated	57.3	0.29	0.63	0.02
Inferred	54.7	0.27	0.59	0.02

#### TABLE 1 SAN JOSE MINERAL RESOURCE, REPORTED ABOVE 0.1% LI CUT-OFF, DECEMBER 2017

Estimated using Ordinary Kriging methodology. Note: Small discrepancies may occur due to rounding

0.61

0.02

0.28

Classification Indicated	Tonnes (Mt) 14.1	Li (%) 0.43	Li <sub>2</sub> O (%) 0.92	Sn (%) 0.03
Inferred	11.1	0.41	0.88	0.03
TOTAL	25.2	0.42	0.90	0.03

 TABLE 2
 SAN JOSE MINERAL RESOURCE, REPORTED ABOVE 0.35% LI CUT-OFF, DECEMBER 2017

Estimated using Ordinary Kriging methodology. Note: Small discrepancies may occur due to rounding

#### Plymouth Executive Chairman Adrian Byass commented:

112.0

"We are extremely pleased to release the updated JORC Resource statement which builds on a huge amount of work completed by the JV at San Jose in 2017. San Jose is a world class asset with lithium mineralisation that is amenable to a simple, open pit mining operation in part of Europe with excellent infrastructure. This resource is now of sufficient JORC confidence level to support the intended Feasibility Study"

#### **Location**

TOTAL

San Jose is an historic tin mine located in the Spanish province of Extremadura (Figure 2). San Jose is located approximately 4 km South East of Caceres and 300km West of Madrid. Plymouth has partnered with Spanish company Sacyr (Sacyr) and its wholly-owned subsidiary, Valoriza Mineria (VM), in an earn-in joint venture (JV) over the project.





FIGURE 2: PROJECT LOCATION PLAN.

#### **Resource Estimate**

Cube Consulting Pty Ltd (Cube) was retained by Plymouth to prepare a Mineral Resource update estimate for its San Jose Lithium-Tin (Li-Sn) Project following the completion of two additional twinned diamond holes.

Lithium (Li) mineralisation is commonly expressed as either lithium oxide ( $Li_2O$ ) or lithium carbonate ( $Li_2CO_3$ ) or Lithium Carbonate Equivalent (LCE)

 Lithium Conversion:
 1.0% Li = 2.153% Li<sub>2</sub>O,
 1.0%Li = 5.32% Li<sub>2</sub>CO<sub>3</sub>

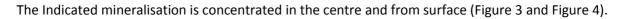
 Current Pricing:
 Tin (Sn) LME spot US\$20,500/t, LCE (99.5% battery) US\$18,000-19,000/t

Resource Estimate Block model construction and interpolation details are contained in the Appendices.

#### **Mineral Resource Category**

A significant proportion of Mineral Resources estimated are in the Indicated category. This broadly correlates with the areas which are drill tested at 70 x 45m or better (Tolsa drilling and Plymouth confirmation/twin drilling). Indicated mineralisation extends from surface. A total of 51% or 57.3Mt tonnes of the global Mineral Resource is classified as Indicated. This represents an overwhelming amount of mineralisation as contained within the optimised open-pits in the Scoping Study is now in the Indicated category. The Indicated category mineralisation is important, as it will support a Feasibility Study, potentially leading into Ore Reserve estimation, as defined by the JORC code.





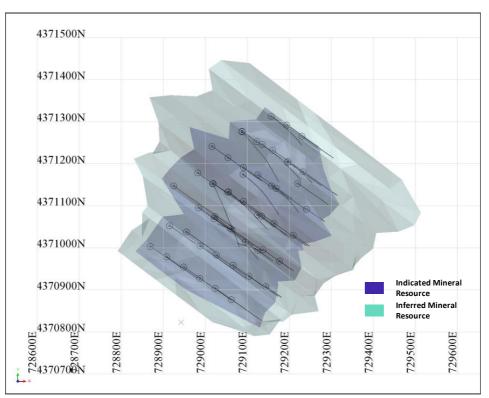


FIGURE 3: PLAN VIEW OF SAN JOSE SHOWING DRILLING, DISTRIBUTION OF RESOURCES SHOWING INDICATED (DARK BLUE), INFERRED (LIGHT BLUE) AGAINST DRILL PATTERN.

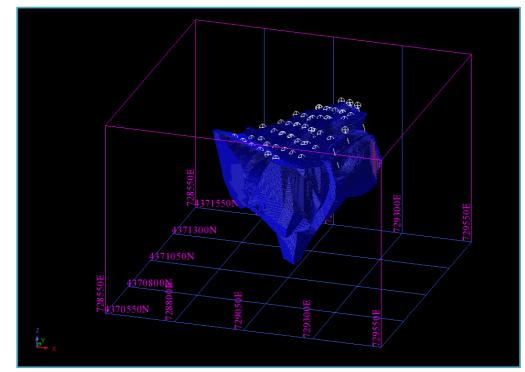


FIGURE 4: ELEVATED VIEW (SOUTH EAST) SHOWING GLOBAL JORC RESOURCE EXTENT AT 0.1% LI CUTOFF AGAINST DRILLING. THE OUTLINE OF TOTAL MINERALISATION IN FIGURE 3 IS THE SAME SHAPE AS SHOWN IN FIGURE 4.

Mineralisation extends over both tenements held within the JV (P.I. Valdeflórez nº 10343-00 and P.I. Ampliación a Valdeflórez nº 10359-00). There is considerable exploration upside within each



tenement. The tenure has been acquired for exploration and potential future process plant requirements.

#### **Exploration and Mining History**

Tin was historically mined at San Jose until the 1960's. Tin was exploited and mined from narrow quartz veins which strike along the main axis of mineralisation, are sub vertical and cross cut lithiumbearing mica host rock. Historic buildings used to exploit tin are still standing at San Jose (Figure 5).



FIGURE 5: HEAD FRAME FROM HISTORIC TIN MINING AT SAN JOSE

Modern Exploration began in the 1980's and was targeting tin and lithium. Extensive drilling for lithium supported a feasibility study to produce lithium carbonate on site. The study was completed in 1991.

#### Next Stages

Plymouth can now increase its stake in San Jose through the expenditure of a minimum of €2.5 million (approximately A\$3.9 million) and completion of a Feasibility Study to ASX JORC standards within 2 years. Plymouth believes this upgraded resource estimate has important implications to the planned Feasibility Study. Some minor geotechnical and metallurgical drilling is expected in early 2018.

For further inquiries please contact;

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Targets is based on the information compiled by Mr Jeremy Peters, FAusIMM CP (Mining, Geology). Mr Peters has sufficient relevant professional experience with open pit and underground mining, exploration and development of mineral deposits similar to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of JORC Code. He has visited the project area and observed drilling, logging and sampling techniques used by Plymouth in collection of data used in the preparation of this report. Mr Peters is an employee of Snowden Mining industry Consultants and consents to be named in this release and the report as it is presented.

The information in this report that relates to the December 2017 updated Mineral Resources is based on the information compiled by Mr Patrick Adams, FAusIMM CP (Geology). Mr Adams has sufficient relevant professional experience with open pit and underground mining, exploration and development of mineral deposits similar to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of JORC Code. Mr Adams has not visited the project area and has relied on the documented (Peters, May 2017) drilling, logging and sampling techniques used by Plymouth in collection of data used in the preparation of this report. Mr Adams is a Principal Geologist and a Director of Cube Consulting Pty Ltd and consents to be named in this release and the report as it is presented.

The information in this report that relates to Exploration Results is based on the information compiled or reviewed by Mr Adrian Byass, B.Sc Hons (Geol), B.Econ, FSEG, MAIG and an employee of Plymouth Minerals Limited. Mr Byass has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Byass consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

#### Disclaimer

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.



#### About Plymouth Minerals' Lithium Project

Plymouth has partnered with the large Spanish company Sacyr and its wholly owned subsidiary Valoriza Mineria in an earn-in JV over a large, lithium-tin project (San Jose) in central Spain. Plymouth can earn up to 75% of San Jose by completing a Feasibility Study within 4 years (approximately A\$6 million in spend in staged increments of 50% and 75%).

San Jose is a highly advanced lithium project which is hosted in lithium-mica that hosts of JORC of lithium carbonate equivalent (LCE). A feasibility study completed in 1991 defined an open pit mining operation and a process flow sheet which produced lithium carbonate through acid-leach or sulphate calcine processing. This drilling, mining and processing study work highlights the advanced status and inherent advantages enjoyed by San Jose in relation to many other hardrock deposits. The resource estimate for San Jose is shown below in Table 3;

2	TABLE 3 SAN JOSE MI	NERAL RESOURCE, REPORTED AB	OVE 0.1% LI CUT-OFF		
リ	Classification	Tonnes (Mt)	Li (%)	Li <sub>2</sub> O (%)	Sn (%)
	Indicated	57.3	0.29	0.63	0.02
))	Inferred	54.7	0.27	0.59	0.02
2	TOTAL	112.0	0.28	0.61	0.02

Estimated using Ordinary Kriging methodology. Note: Small discrepancies may occur due to rounding

Snowden Mining estimated the total Mineral Resource for the San Jose lithium deposit using Ordinary Kriging interpolation methods and reported above a 0.1% Li cut-off grade. Full details of block modelling and estimation are contained in the ASX announcement dated 25 May 2017.

Lithium (Li) mineralisation is commonly expressed as either lithium oxide (Li<sub>2</sub>O) or lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) or Lithium Carbonate Equivalent (LCE). Lithium Conversion: 1.0% Li = 2.153% Li<sub>2</sub>O, 1.0%Li = 5.32% Li<sub>2</sub>CO<sub>3</sub>

The Resource was announced to the ASX on 5<sup>th</sup> December 2017. Plymouth is not aware of any new information or data that materially affects the information included in this ASX release, and Plymouth confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the resource estimates in this release continue to apply and have not materially changed.

San Jose Lithium-Tin Project (100 basis, no by-product credits included)

NPV (8) @ US\$10,000/t LC	US\$401m	IRR 28%
NPV (8) @ US\$12,000/t LC	US\$634m	IRR 37%
Сарех	US\$273m inc 10% contingency	
Grade – Lithium Carbonate LOM	1.7%	
Potential annual production (tonnes lithium carbonate)	15,000tpa LC +99.5%	
Average C1 cost year 1-10 (US\$/tonne) without credit*	\$4,763/t	
Average gross operating cashflow p.a. years 1-10	US\$ 74.8m	

Scoping Study – Cautionary Statement

Refer to ASX announcement 18th October 2017. The Scoping Study referred to in this announcement is a preliminary technical and economic investigation of the potential viability of the San Jose Lithium-Tin Project. It is based on low accuracy technical and economic assessments, (+/-35% accuracy) and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage; or to provide certainty that the conclusions of the Study will be realised. Plymouth confirms that all the material assumptions underpinning the production target, or the forecast financial information derived from the production target, in the initial ASX announcement continue to apply and have not materially changed. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated Mineral Resources or that the Production Target or preliminary economic assessment will be realised.



#### About Plymouth Minerals' Potash Projects

Plymouth owns 100% of the Banio and Mamana Potash Projects, which are drill proven, high-grade, shallow potash deposits. Both Banio and Mamana enjoy good access to infrastructure being located on the coast of Gabon or on major transport river ways (barge) with direct access to export ports. Banio has a multi-billion tonne Exploration Target of carnallite and sylvinite based on historical seismic and drilling data. Plymouth is drill testing this Exploration Target.

Brazil is a major consumer of potash and South America is the largest consumer of sea-borne potash (MOP) in the world. The West African coast and potash deposits there enjoy a significant shipping advantage over other major potash producing regions.

Exploration Targets for potash mineralisation at its 100% owned Banio Project in Gabon (Table 4 ).

Prospect	Potash Mineralogy	Project (Alpha and Depth to Potash (m)	Tonnage Range (Mt)	Grade Range (K <sub>2</sub> 0%)	Grade Range (KCl%)
Alpha	Sylvinite	290	262-415	18 - 22	28.5 - 34.8
Ndindi Northern	Carnallite	360	2,600-5,200	12 - 14	19.0 - 22.2
Ndindi Southern	Carnallite	500	3,100-4,800	12 - 14	19.0 - 22.2
Combined			6,000-10,400	12.3-14.4	19.4-22.7

\*Disclaimer: The potential quantity and grade of the Banio Exploration Target is conceptual in nature. There has been insufficient exploration completed to date to estimate a Mineral Resource in accordance with the JORC 2012 Edition Guidelines. It is uncertain if further exploration will result in the delineation of a Mineral Resource. The Exploration Target was announced to the ASX on 24 November 2016. Plymouth is not aware of any new information or data that materially affects the information included in this ASX release, and Plymouth confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the exploration target in this release continue to apply and have not materially changed.

Grade expressed as either units (%) K<sub>2</sub>O or KCl. Ratio K<sub>2</sub>O x 1.58 = KCl



#### **Appendices 1: Collar Plan**

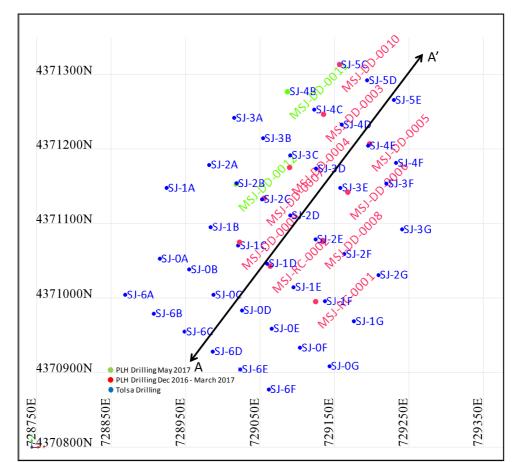


FIGURE 6: DRILL COLLAR PLAN OF SAN JOSE SHOWONG TOLSA AND PLYMOUTH DRILLING. SECTION LINE A-A' AS SHOWN IN FIGURE 1A AND 1B.

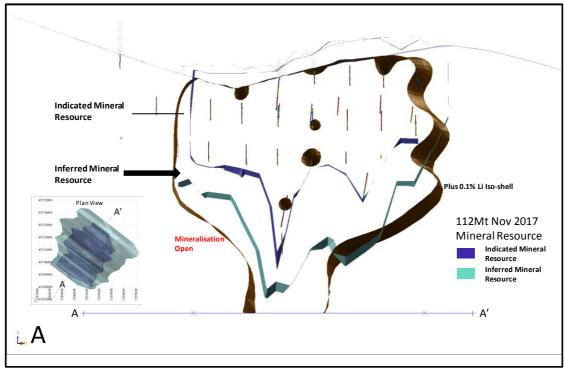


FIGURE 7: CROSS SECTION SHOWING DRILL TRACE AND RESOURCE CATEGORY OUTLINES FOR SAN JOSE.



#### **Appendices 2: Block Model Details**

#### BLOCK MODELLING AND GRADE ESTIMATION

Mineralised domains are zinnwaldite-bearing shales (domain 1) and the less-mineralised quartzite (domain 3). Composite intervals were extracted by domain and do not cross lithological boundaries.

Statistical analysis indicates that the domains are largely single populations, with low to moderate skew. Variograms were modelled for all elements for each domain to assess the grade continuity and to inform grade estimation.

A block model was constructed, based on a parent block size of 20mE x 20mN x 10mRL, with a minimum sub-block size of 1.25mE x 1.25mN x 0.625mRL. The parent block size is based on the nominal drill-hole spacing and consideration of the mineralisation geometry and grade continuity analysis. A high resolution was chosen for the minimum block size to allow definitio9n of the thin quartzite beds and quartz carbonate veins (domain 2).

Cube estimated Li, Cs, Sn and Fe grades using ordinary block kriging (parent cell estimates) using SURPAC software. A minimum of 4 and maximum of 20 samples was used with a single search pass strategy.

The block grade estimates were validated both globally and locally to ensure that the estimates appropriately reflect the trends in the input sample data. A comparison of the global drill-hole mean grades with the mean grade of the block model estimate, by domain, indicates that the block model mean grades are typically less than 5% of the drill-hole composite means.

#### BULK DENSITY

Bulk density has been left unchanged from the previous estimate (Peters, May 2017) as no additional material data was available.

In May 2017, bulk density was estimated within zones where sample numbers allowed for ordinary kriging methods to be applied. Estimation parameters were extracted after modelling variograms to all bulk density data.

Average bulk density values for the quartzite and the quartz veins were applied based on lithological wireframes and any other blocks were assigned an average bulk density.

#### RESOURCE CLASSIFICATION

The December 2017 San Jose Mineral Resource estimate is classified and reported in accordance with the JORC Code.

The Mineral Resource has been classified as a combination of Indicated Mineral Resources and Inferred Mineral Resources:

- Indicated Resource mineralisation that is constrained by a 0.1% Li isoshell, within a defined central zone where geological continuity is demonstrated in drill holes at a spacing equal to or less than 70m by 45m. The resulting Indicated blocks have an average distance to composite data of less than 35m and an average slope of regression of 0.65.
- Inferred Resource mineralisation that is constrained by a 0.1% Li isoshell, where reasonable geological and mineralisation continuity is displayed, however due to the wide drill spacing, both geological and grade continuity is assumed rather than verified. Extrapolation beyond the drilling is limited to approximately one drill section (70 m) in most cases. The resulting Inferred blocks have an average distance to composite data of less than 70m and an average slope of regression of 0.30.

Outside of the Inferred material is a halo of extrapolation constrained within the mineralisation isoshell is considered Exploration Potential. Material is this category consists of blocks with an average distance to composite data of less than 130m and an average slope of regression of 0.02.



#### Appendices 3 San Jose Drill Hole Collar Table

	HOLE_ID	DRILLED	X_UTM	Y_UTM	Z_EGM2008	DIP	AZIMUTH	EOH	TYPE
	MSJ-DD-0003	Р	729,135	4,371,247	508	-60	128	250	DDH
	MSJ-DD-0004	Р	729,090	4,371,175	493	-60	128	250.2	DDH
	MSJ-DD-0005	Р	729,197	4,371,207	521	-60	128	150.3	DDH
	MSJ-DD-0006	Р	729,168	4,371,142	518	-60	128	150.5	DDH
	MSJ-DD-0007	Р	729,056	4,371,134	484	-60	128	257	DDH
	MSJ-DD-0008	Р	729,134	4,371,076	497	-60	128	146.4	DDH
	MSJ-DD-0009	Р	729,023	4,371,075	471	-60	128	282	DDH
	MSJ-DD-0010	Р	729,157	4,371,314	518	-60	128	188.9	DDH
	MSJ-DD-0011	Р	729,087	4,371,277	498	-65	130	359.6	DDH
	MSJ-DD-0012	Р	729,018	4,371,153	476	-70	155	452	DDH
	MSJ-RC-0001	Р	729,125	4,370,995	478	-70	288	147	RC
	MSJ-RC-0002	Р	729,064	4,371,043	476	-70	292	113	RC
	SJ-0A	Т	728,915	4,371,053	449	-62	125	162	RC
	SJ-0B	Т	728,955	4,371,038	455	-62	125	180	RC
	SJ-0C	Т	728,987	4,371,004	454	-63	125	296.3	DDH
	SJ-0D	Т	729,026	4,370,983	458	-62	125	180	RC
	SJ-0E	Т	729,066	4,370,959	462	-62	125	180	RC
	SJ-0F	Т	729,104	4,370,933	464	-62	125	180	RC
	SJ-0G	Т	729,143	4,370,909	465	-63	125	100	RC
	SJ-1A	Т	728,924	4,371,148	457	-63	125	391.5	DDH
	SJ-1B	Т	728,984	4,371,095	466	-62	125	190	RC
	SJ-1C	Т	729,021	4,371,070	471	-63	125	251.5	DDH
	SJ-1D	Т	729,060	4,371,046	477	-62	125	200	RC
	SJ-1E	Т	729,095	4,371,015	476	-65	125	193	RC
	SJ-1F	Т	729,137	4,370,996	480	-62	125	180	RC
	SJ-1G	Т	729,176	4,370,969	479	-65	125	100	RC
	SJ-2A	Т	728,982	4,371,179	467	-62	125	201	RC
F	SJ-2B	Т	729,018	4,371,154	476	-62	125	201	RC
F	SJ-2C	Т	729,053	4,371,133	485	-62	125	200	RC
F	SJ-2D	Т	729,090	4,371,111	493	-62	125	200	RC
┢	SJ-2E	Т	729,124	4,371,079	497	-62	125	200	RC



	HOLE_ID	DRILLED	X_UTM	Y_UTM	Z_EGM2008	DIP	AZIMUTH	EOH	TYPE
	SJ-2F	Т	729,163	4,371,059	496	-62	125	200	RC
	SJ-2G	Т	729,209	4,371,031	493	-62	125	100	RC
	SJ-3A	Т	729,015	4,371,242	477	-62	125	200	RC
)	SJ-3B	Т	729,054	4,371,215	486	-62	125	200	RC
	SJ-3C	Т	729,091	4,371,192	494	-63	125	299.6	DDH
	SJ-3D	Т	729,125	4,371,174	506	-62	125	201	RC
	SJ-3E	Т	729,158	4,371,148	517	-62	125	212	RC
	SJ-3F	т	729,220	4,371,153	521	-62	125	183	RC
	SJ-3G	т	729,241	4,371,092	509	-62	125	100	RC
	SJ-4B	т	729,087	4,371,277	498	-62	125	201	RC
	SJ-4C	т	729,123	4,371,253	507	-62	125	201	RC
	SJ-4D	т	729,160	4,371,233	514	-62	125	200	RC
	SJ-4E	т	729,195	4,371,205	521	-62	125	213	RC
	SJ-4F	т	729,233	4,371,181	525	-62	125	200	RC
	SJ-5C	т	729,157	4,371,314	518	-63	125	300.5	DDH
	SJ-5D	т	729,194	4,371,292	526	-62	125	197	RC
	SJ-5E	т	729,230	4,371,266	532	-62	125	195	RC
	SJ-6A	т	728,869	4,371,004	469	-62	125	190	RC
	SJ-6B	т	728,907	4,370,979	468	-62	125	190	RC
	SJ-6C	т	728,949	4,370,955	466	-63	125	199.8	DDH
-	SJ-6D	т	728,987	4,370,928	465	-62	125	190	RC
	SJ-6E	Т	729,024	4,370,904	463	-62	125	190	RC
	SJ-6F	Т	729,062	4,370,877	463	-62	125	190	RC

T DETSONAL USE ONIY

Drill Company (T) Tolsa, (P) Plymouth

Datum UTM Zone 29, EGM 2008



### JORC (2012) Table 1 – Section 1 Sampling Techniques and Data

Item	JORC Code explanation	Comments
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Plymouth samples collected were rock chips from Reverse Circulation (RC) and HQ core from Diamond Drill Holes (DDH) in one metre intervals.</li> <li>Historic RC rock chip samples were collected in two metre intervals.</li> <li>RC Drilling was used to obtain one metre samples. Samples were composited i two meters, crushed, dried, mixed, riffle split and pulverised to produce a representative sub-sample for analysis. The following elements are included in the analysis: Li, Sn, Rb, La, Cs, Nd, W, Nb</li> <li>Diamond Core was crushed, dried, mixed, riffle split and pulverised to produce representative sub-sample for analysis. The following elements are included in the analysis: Li, Sn, Rb, La, Cs, Nd, W, Nb</li> <li>No details are available as to the historical sampling techniques.</li> </ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Banka, 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>Diamond drilling using a HQ diameter with a Longyear 44 Drill Rig. RC Drilling using a 5 1/8" Tricone with a RCG 2500 model Drill Rig.</li> <li>No details are available as to the historical drilling techniques</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 samples.</li> <li>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.</li> </ul>	<ul> <li>Sample recovery was calculated by comparing the difference between the theoretical weight and the actual weight and recorded onto a logging sheet.</li> <li>The average recovery for DDH drilling is greater than 95%.</li> <li>The average recovery for RC drilling is greater than 80%.</li> <li>Measures taken to maximise sample recovery and ensure representative samples are unknown.</li> <li>No relationship between sample recovery and grade has been established.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	<ul> <li>Chip samples have been geologically logged to a level of detail to support Mineral Resources estimation studies.</li> <li>The diamond core has been logged geologically to a level of detail to support Mineral Resource estimation studies</li> <li>The logging is qualitative.</li> </ul>



ltem	JORC Code explanation	Comments
	The total length and percentage of the relevant intersections logged.	All drill holes have been logged in full.
Subsampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Historical RC drill hole samples were collected on 2 m intervals.</li> <li>Historic holes had all core taken for sample. Diamond Core was crushed, dried mixed, riffle split and pulverised to produce a representative sub-sample for analysis.</li> <li>RC Drilling was used to obtain one metre samples. Samples were composited i two meters, crushed, dried, mixed, riffle split and pulverised to produce a representative sub-sample for analysis.</li> <li>The sample sizes are considered to be reasonable to correctly represent the mineralisation based on the style of mineralisation (amblygonite (Li)-bearing slate and quartzite), the thickness and consistency of intersections and the drilling methodology.</li> <li>The sample preparation of drill chip samples follows industry best practice in sample preparation involving oven drying, crush to 1mm, 0.4kg split sample and pulverised to 85% passing 53 microns. Core was sent to the laboratory where it was milled, crushed to 1 mm, 0.4kg sample split and pulverised to 85% passing 53 microns.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The analytical technique for Li of NaOH fusion and Hydrochloric solution with Atomic Absorption Spectroscopy finish is considered appropriate for the mineralisation style.</li> <li>The analytical technique for Sn of NH4 sublimation and Hydrochloric solution with Atomic Absorption Spectroscopy finish is considered appropriate for the mineralisation style.</li> <li>Duplicates are taken at regular intervals. No bias has been observed in the recent assays.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Cube has not conducted any independent verification of the assay data.</li> <li>The assay data from which the significant intercepts have been verified by Tols and Plymouth Geologists.</li> <li>Between Dec 2016 and March 2017 Plymouth twinned a number of Tolsa holes MSJ-DD0009 and SJ1C, MSJ-DD-0010 and SJ-5C, MSJ-DD-0004 and SJ-4CMSJ-DD-0008 and SJ-2E, MSJ-DD-0007 and SJ-2C, MSJ-DD-0006 and SJ-3E.0005 and SJ-4E. Results from the sets of holes were comparable.</li> <li>Between May and July 2017 Plymouth twinned two additional Tolsa holes MSJ-DD0011 and SJ-4B, MSJ_DD0012 and SJ-2B. Results from these two sets of</li> </ul>



ltem	JORC Code explanation	Comments
		holes were comparable.
		<ul> <li>Procedures for all aspects of drilling, sampling and geological logging are documented by PLH.</li> </ul>
		<ul> <li>Diamond drillholes have been twinned by RC drillholes. Analysis of the twinned holes shows a reasonable comparison between the drilling techniques.</li> </ul>
		Values below the analytical detection limit were replaced with half the detection limit value. No other adjustments have been made to the assay data.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul> <li>No down hole survey information is available for historic holes. Historic Drill hol collar locations have been checked using historic drill plans and local grids verified with coordinates collected from historic holes with a DGPS.</li> </ul>
	<ul><li>Specification of the grid system used.</li><li>Quality and adequacy of topographic control.</li></ul>	<ul> <li>Historic holes have been drilled according to a local grid. Local grid transform t ETRS Transverse Mercator Zone 29 co-ordinates are used.</li> </ul>
		Topographic survey has been done in local grid.
		• A LIDAR topographic survey based on 1 m contours of the project area was provided. The topography surface is validated by the drillhole collar surveys.
Data spacing	Data spacing for reporting of Exploration Results	Drill holes have been drilled in a 70 * 48 m grid pattern.
and distribution	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral	• The section spacing is sufficient to establish the degree of geological and grad continuity necessary to support the resource classifications that were applied.
	Resource and Ore Reserve estimation procedure(s) and classifications applied.	The drilling was composited downhole using 2 m intervals.
	<ul> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing and distribution is sufficient to establish a degree of geological argrade continuity appropriate for the Mineral Resource estimation procedures.</li> </ul>
Orientation of data in	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the</li> </ul>	<ul> <li>The location and orientation of the majority of the drilling is appropriate given the strike and morphology of the lithium slate mineralisation.</li> </ul>
relation to	deposit type.	• There are no known biases caused by the orientation of the drill holes.
geological structure	<ul> <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>	
Sample	The measures taken to ensure sample security.	There are no details available regarding sample security of historical sampling
security		• Once received at the laboratory, samples were compared by the laboratory to the sample dispatch documents.
		• Cube does not believe that sample security poses a material risk to the integrit of the assay data used in the Mineral Resource estimate.
Audits and	The results of any audits or reviews of sampling techniques and data.	Historic data has been reviewed by Plymouth Geologists.



	ltem	JORC Code explanation	Comments
	reviews		• Cube is not aware of any other independent reviews of the drilling, sampling and assaying protocols, or the assay database, for the project.
>>>			assaying protocols, of the assay database, for the project.

# JORC (2012) Table 1 – Section 2 Reporting of Exploration Results

Item	JORC Code explanation	Comments
Mineral tenement and land tenure	<ul> <li>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.</li> <li>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.</li> </ul>	• The San Jose Project is located 4km SE of Caceres in Spain. The San Jose Project is held within Investigation Permit No 10C10343-00 which is owned by Valoriza Mineria. Plymouth Minerals has an earn-in and Joint Venture Agreement with Valoriza Mineria (ASX announcement 14 June 2016). The Investigation Permit is in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>San Jose was historically mined for tin and tungsten in the 1960s and later underwent extensive evaluation and feasibility work for lithium and tin mineralisation between 1985 and 1991 which was conducted by Tolsa SA.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	• The San Jose Deposit was formed by an amalgamation of quartz and quartz- pegmatite veins, which formed a stockwork hosted by metasediments. The mineralisation is disseminated in both the host as lithium micas and the veins hosting tin as cassiterite, lithium as amblygonite-montebrasite and minor tungsten as wolframite. The lithium is found mainly in the micas of muscovite-fengite type in the host rock and in lesser proportion in the amblygonite-montebrasite of the veins.
		• Primary mineral occurrences in the area appear to be of 3 types, lodes, stratabound or stratiform. The lode deposits are essentially quartz vein or stringer systems that fill late-Variscan Orogeny fractures and carry tin and/or tungsten minerals. Most of these occurrences, even if they are hosted by meta-sediments are regarded as being related to the ubiquitous late-Variscan granitic intrusions.
Drillhole information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:	Refer Appendices 3.
	<ul> <li>easting and northing of the drillhole collar</li> </ul>	
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> </ul>	
	<ul> <li>dip and azimuth of the hole</li> </ul>	
	<ul> <li>downhole length and interception depth</li> </ul>	



	Item	JORC Code explanation
		<ul> <li>hole length.</li> </ul>
	)	<ul> <li>If the exclusion of this information is not Mate understanding of the re why this is the case.</li> </ul>
$\bigcirc$	Data aggregation methods	<ul> <li>In reporting Exploration maximum and/or minin and cut-off grades are</li> </ul>
		<ul> <li>Where aggregate inter results and longer leng such aggregation shou aggregations should be</li> </ul>
		The assumptions used be clearly stated.
	Relationship between	These relationships an Exploration Results.
	mineralisation widths and	<ul> <li>If the geometry of the known, its nature should</li> </ul>
	intercept lengths	<ul> <li>If it is not known and o should be a clear state width not known').</li> </ul>
	Diagrams	<ul> <li>Appropriate maps and should be included for should include, but not and appropriate sectio</li> </ul>
	Balanced reporting	Where comprehensive practicable, representa widths should be pract Results.
	Other substantive exploration data	Other exploration data including (but not limite results; geochemical s

	ltem	J	ORC Code explanation	Comments
		•	– 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.	
	Data aggregation methods	•	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.	No exploration results being reported.
	Relationship between mineralisation widths and intercept lengths	•	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	No exploration results being reported.
	Diagrams	•	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Refer to figures in main summary.
	Balanced reporting	•	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No exploration results being reported.
)	Other substantive exploration data	•	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No exploration results being reported.



Item	JORC Code explanation	Comments
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Cube recommends that Plymouth expand the Indicated Mineral Resource through infill and extensional drilling, undertake preliminary geotechnical
1 1 1	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	examination and metallurgical testing for metal recovery.

## JORC (2012) Table 1 – Section 3 Estimation and Reporting of Mineral Resources

Item	JORC Code explanation	Comments
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>	Cube undertook a routine check of the data for potential errors as a preliminary step to compiling the resource estimate. No significant flaws were identified.
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>Snowden Principal Consultant, Jeremy Peters, visited the project on 18 October 2016, observing the exposed Li bearing slate as outcrop and the overall geometry and nature of the mineralisation.</li> <li>Cube Principal Geologist has not visited the site and has relied on the documented observations on Mr Peters.</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>Cube believes that the local geology is reasonably well understood as a result of work undertaken by PLH and Tolsa.</li> <li>Lithium mineralisation occurs within three zones; hosted by slate, quartzite or quartz veins. The quartz veins have previously been mined for Tungsten (W).</li> <li>A mineralisation isoshell has been created using LeapFrog software implicit modelling techniques based on the complete Li assay dataset and main directions of grade continuity to define a 3D wireframe encompassing the plus 0.1% Li mineralisation.</li> <li>The isoshell based on a Li plus 0.1% Li (domain 1) was considered appropriate to constrain mineralisation whilst honouring grade trends shown in the raw drillhole data.</li> <li>The quartzite was interpreted and wireframed in section by PLH and supplied to Cube as validated solids. These zones were domained (domain 3) as the low-grade, coarser grained Li mineralisation zone.</li> <li>The hangingwall contact of the quartz-carbonate veins were interpreted and wireframed in section by PLH and supplied to Cube as validated solids, assuming a thickness of 0.5 m. This average</li> </ul>



	Item	JORC Code explanation	С	comments
_				that the full extent of these veins has been mined out and the volume defined (domain 2) has been excluded from the Mineral Resource.
			•	Outcrops and exposure of the Li enriched slates and quartzite documented, confirm the validity of the geological interpretation based on the drilling.
			•	Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised envelopes in terms of the reported classified resources.
) _	Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the	•	The drilling at the deposit extends over a strike distance of 420m and includes a 480m vertical interval from 530m to 50m.
)		upper and lower limits of the Mineral Resource.	•	Mineralisation is hosted within the slate (bearing 220°) the quartzite (bearing 300°) and the quartz veins (bearing 220°)
)	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 assisted estimation	•	Estimation of Li ppm, Fe%, Sn ppm and Cs ppm using ordinary block kriging wi hard domain boundaries and top-cuts where required to control the impact of outlier grades. No top-cuts were applied to Li. Grade estimation was completed using Surpac v6.7 Mining Software (Surpac).
)		method was chosen include a description of computer software and	•	High grade cuts were applied to Fe (15%), Sn (5,000ppm) and Cs (9,000ppm)
		<ul> <li>parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> </ul>	•	A Surpac block model was used was designed to encompass the full extent of the deposit with a block size of 20m NS by 20m EW by 10m vertical with sub-cells of 1.25m by 1.25m by 0.625m. The sub-cells were given a high resolution to enable the representation of the thin guartz veins parallel to the main mineralisation
		The assumptions made regarding recovery of by-products.		trend (domain 2).
)		<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> </ul>	•	The search ellipse orientation was based on the results of the grade continuity analysis (variography), with individual search neighbourhood parameters used for each element estimated. A single search radius designed to fill the defined
		• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.		mineralised domains (domain 1 and domain 3) was used, with a minimum of 4 and maximum of 20 samples based on the QKNA analysis of Li ppm. No limit to number of samples per drillbale was used.
))		Any assumptions behind modelling of selective mining units.		number of samples per drillhole was used. Lithium mineralisation was used as the limiting mineralised volume, based on the
		Any assumptions about correlation between variables.		plus 0.1% Li threshold isoshell.
		• Description of how the geological interpretation was used to control the resource estimates.	•	Within the mineralised volume, Quartz (domain 2) and quartzite (domain 3) zones were attributed to the model based on 3DM Surpac wireframes.
		Discussion of basis for using or not using grade cutting or capping.	•	Grade estimates were validated against the input drillhole composites (globally
1		• The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if		and using grade trend plots) and show a reasonable correlation.
		available.	•	Two previous resource estimates have been completed in 1993 and in May 2017. Whilst the procedures and parameters used for 1993 resource estimation

	• Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised envelopes in terms of the reported classified resources.	
bility of the Mineral Resource expressed as length wise), plan width, and depth below surface to the ts of the Mineral Resource.	<ul> <li>The drilling at the deposit extends over a strike distance of 420m and includes a 480m vertical interval from 530m to 50m.</li> <li>Mineralisation is hosted within the slate (bearing 220°) the quartzite (bearing 300°) and the quartz veins (bearing 220°)</li> </ul>	
opriateness of the estimation technique(s) applied s, including treatment of extreme grade values, tion parameters and maximum distance of ata points. If a computer assisted estimation	• Estimation of Li ppm, Fe%, Sn ppm and Cs ppm using ordinary block kriging with hard domain boundaries and top-cuts where required to control the impact of outlier grades. No top-cuts were applied to Li. Grade estimation was completed using Surpac v6.7 Mining Software (Surpac).	
include a description of computer software and	• High grade cuts were applied to Fe (15%), Sn (5,000ppm) and Cs (9,000ppm)	
eck estimates, previous estimates and/or mine nd whether the Mineral Resource estimate takes of such data.	<ul> <li>A Surpac block model was used was designed to encompass the full extent of deposit with a block size of 20m NS by 20m EW by 10m vertical with sub-ce 1.25m by 1.25m by 0.625m. The sub-cells were given a high resolution to e the representation of the thin quartz veins parallel to the main mineralisation</li> </ul>	
de regarding recovery of by-products.	trend (domain 2).	
ious elements or other non-grade variables of e (e.g. sulphur for acid mine drainage model interpolation, the block size in relation to the	<ul> <li>The search ellipse orientation was based on the results of the grade continuity analysis (variography), with individual search neighbourhood parameters used for each element estimated. A single search radius designed to fill the defined mineralised domains (domain 1 and domain 3) was used, with a minimum of 4 and maximum of 20 samples based on the QKNA analysis of Li ppm. No limit to number of samples per drillhole was used.</li> </ul>	
cing and the search employed.		
hind modelling of selective mining units.	• Lithium mineralisation was used as the limiting mineralised volume, based on the	
out correlation between variables.	plus 0.1% Li threshold isoshell.	
e geological interpretation was used to control the	• Within the mineralised volume, Quartz (domain 2) and quartzite (domain 3) zones were attributed to the model based on 3DM Surpac wireframes.	
or using or not using grade cutting or capping.	• Grade estimates were validated against the input drillhole composites (globally	
ation, the checking process used, the comparison	and using grade trend plots) and show a reasonable correlation.	
hole data, and use of reconciliation data if	• Two previous resource estimates have been completed in 1993 and in May 2017. Whilst the procedures and parameters used for 1993 resource estimation aren't available, the average grade and tonnes are still comparable. Comparison of the December 2017 MRE with the May 2017 MRE shows no material	



ltem	JORC Code explanation	Comments
		differences within the May 2017 common volume.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages have been estimated as dry tonnages.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>The mineralisation has been reported above a 0.1% Li cut-off grade.</li> <li>The 0.1% Li cut-off grade was applied for the reporting based on pit optimisation carried out by Snowden in May 2017. The sensitivity of the Mineral Resource to the reporting cut-off grade is minimal at cut-offs below 0.1% Li due to the limiting mineralisation threshold.</li> </ul>
Mining factors and 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.	The mineralisation is amenable to conventional truck and shovel mining techniques and no complications have been observed at this stage.
Metallurgical factors and assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the 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>Cube is not qualified to comment in detail on metallurgy, but has examined a summary of previous metallurgical test-work and understands that Plymouth has commissioned its own metallurgical assessment of the project.</li> </ul>
Environmental factors and 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 greenfields 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.	• The area in which the project is located is a historic mining district. However, the project has not advanced to the stage where concrete options regarding waste and process residue disposal; options or potential environmental impacts are being examined. Currently no environmental assumptions have been applied to the MRE.
Bulk density	• 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	<ul> <li>Variograms modelled by Snowden in May 2017 for bulk density are reported as poor due to a limited sample number based on lithology (374 samples total)</li> <li>Correlation between bulk density and grade was analysed by Snowden and</li> </ul>



Item	JORC Code explanation	Comments
D	<ul> <li>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.), 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>considered significant enough to apply Li estimation parameters to the bulk density estimation constrained to the main mineralisation zone (domain = 1)</li> <li>Where there was insufficient data within domain 1 to estimate bulk density an average value for the estimated bulk density was applied (2.75 kg/cm<sup>3</sup>)</li> <li>Average values based on lithology were assigned to the quartzite (2.68 kg/cm<sup>33</sup>) and the quartz veins (2.66 kg/cm<sup>33</sup>).</li> <li>A background value of 2.76 was set for all other material.</li> <li>Cube in the December 2017 MRE have used the modelled bulk density unchanged from the May 2017 MRE.</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>	<ul> <li>The Mineral Resource has been classified by Cube as a combination of Indicated and Inferred Resources using the following criteria         <ol> <li>Indicated Resource – a central zone of the mineralisation where drill hole spacing is generally below 70m by 45m (N x E) and mineralisation appears to be supported down-dip.</li> <li>Inferred Resource – that part of the remaining mineralisation constrained by the 0.1% Li isoshell where reasonable geological and mineralisation continuity is displayed, however due to the wide drill spacing, both geological and grade continuity is assumed rather than verified.</li> </ol> </li> <li>Extrapolation of the Inferred mineralisation beyond the drilling is limited to approximately one drill section along strike and 50m across strike and down-dip. Outside of this extrapolation and constrained within the mineralisation isoshell is considered exploration potential. The resources have been classified based on the continuity of both the geology and the grades (as modelled in variograms), along with the drillhole spacing and data quality considerations.</li> <li>The depth extent of the Mineral Resource has been reviewed using an optimised pit shell, designed using industry standard costs and a Lithium Oxide revenue of US\$20,000/t.</li> <li>The Mineral Resource classification appropriately reflects the view of the Competent Person.</li> </ul>
Audits and reviews	• The results of any audits or reviews of Mineral Resource estimates.	Cube is not aware of any external reviews of the Mineral Resource estimate.



Item	JORC Code explanation	Comments
Discussion of relative accuracy/ confidence	<ul> <li>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 accuracy and confidence of the estimate.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The Mineral Resource statement relates to a global Mineral Resource.</li> <li>No geostatistical procedures have been undertaken to establish the relative accuracy of the resource within confidence limits.</li> <li>The Mineral Resource has been validated both globally and locally against the input composite data, in section, cross-section and by RL. The Indicated portion of the Mineral Resource estimate is considered to be locally accurate at the scale of the parent block size. Close spaced drilling will be required to assess the confidence of the short range grade continuity.</li> <li>The December 2017 Mineral Resource has been compared with the May 2017 Mineral Resource within a common volume with no material difference reported.</li> <li>The material between the two Mineral Resource statements is a material increase in the portion of Indicated Mineral Resource and a minor increase in the reported grade from May 2017. The increase in the portion of Indicated Resource is a result of Cubes approach to classification, whereby Cube is satisfied that the TOL drilling has been sufficiently validated (by twin drilling undertaken by Plymouth) to be considered as of a sufficient standard to form the basis of Indicated Mineral Resources. The minor increase in grade can be attributed to an updated variogram model and an adjustment in search orientation based on the variography.</li> <li>No production data is available for comparison with the Mineral Resource estimate at this stage due to the early stage of the mining.</li> </ul>