

25<sup>th</sup> May 2017

ASX via Electronic Lodgement

## **Maiden Mineral Resource Establishes San Jose Lithium-Tin Deposit as One of the Largest in Europe**

*Large, open-ended, outcropping, high-grade lithium mica*

- **Maiden Lithium (Li) Mineral Resource contains an estimated +1.3M tonnes of Lithium Carbonate Equivalent (LCE) – one of the largest in Europe**

**92.3Mt at 0.6% Li<sub>2</sub>O and 0.02% Sn (0.1% Li cut-off)**

*With a higher-grade core:*

**16.5Mt @ 0.9% Li<sub>2</sub>O and 0.04% Sn (0.35% Li cut off)**

- **Proven simple process flow-sheet and metallurgy to saleable lithium carbonate**
- **Deposit is open along strike and at depth. Large Exploration Target with the potential to double the Maiden Mineral Resource**
- **Expansion drilling planned to commence in June and Mining Licence Application planned for Q3 2017**

Plymouth Minerals Limited (ASX: PLH) (Plymouth or the Company) is pleased to announce in accordance with the JORC Code its maiden lithium-tin Mineral Resource at the San Jose project in Spain. Lithium (Li) at San Jose is hosted in mica minerals with tin (Sn) hosted in associated quartz. Lithium-bearing micas are an established source of lithium which is able to be directly converted to lithium carbonate on site, bypassing the requirement to trade in concentrate with off-site convertors. Lithium at San Jose is 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.

Plymouth and its Spanish Joint Venture partner, Valoriza Minería (VM), intend to produce lithium carbonate (LCE) 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. San Jose has undergone extensive historical exploration and metallurgical test work which culminated in a positive feasibility study to produce lithium carbonate on site using open pit mining and proven process technology.

The Resource outcrops and is open at depth and along strike (Figure 1). Plymouth recently completed (Q1 2017) an infill drilling programme of 10 holes (2 RC and 8 diamond) for approximately 2,000m. This was designed to support historical drilling in order to allow Mineral Resource estimation in accordance with the JORC Code and provide high confidence for open pit optimisation. The drilling and assay database for San Jose now comprises in excess of 52 holes for approximately 10,400m of drilling including 3,500m of

diamond drilling. Plymouth drilling was focussed on increasing the Mineral Resource category classification for a 'core' of mineralisation that would be the target of initial open pit mining.

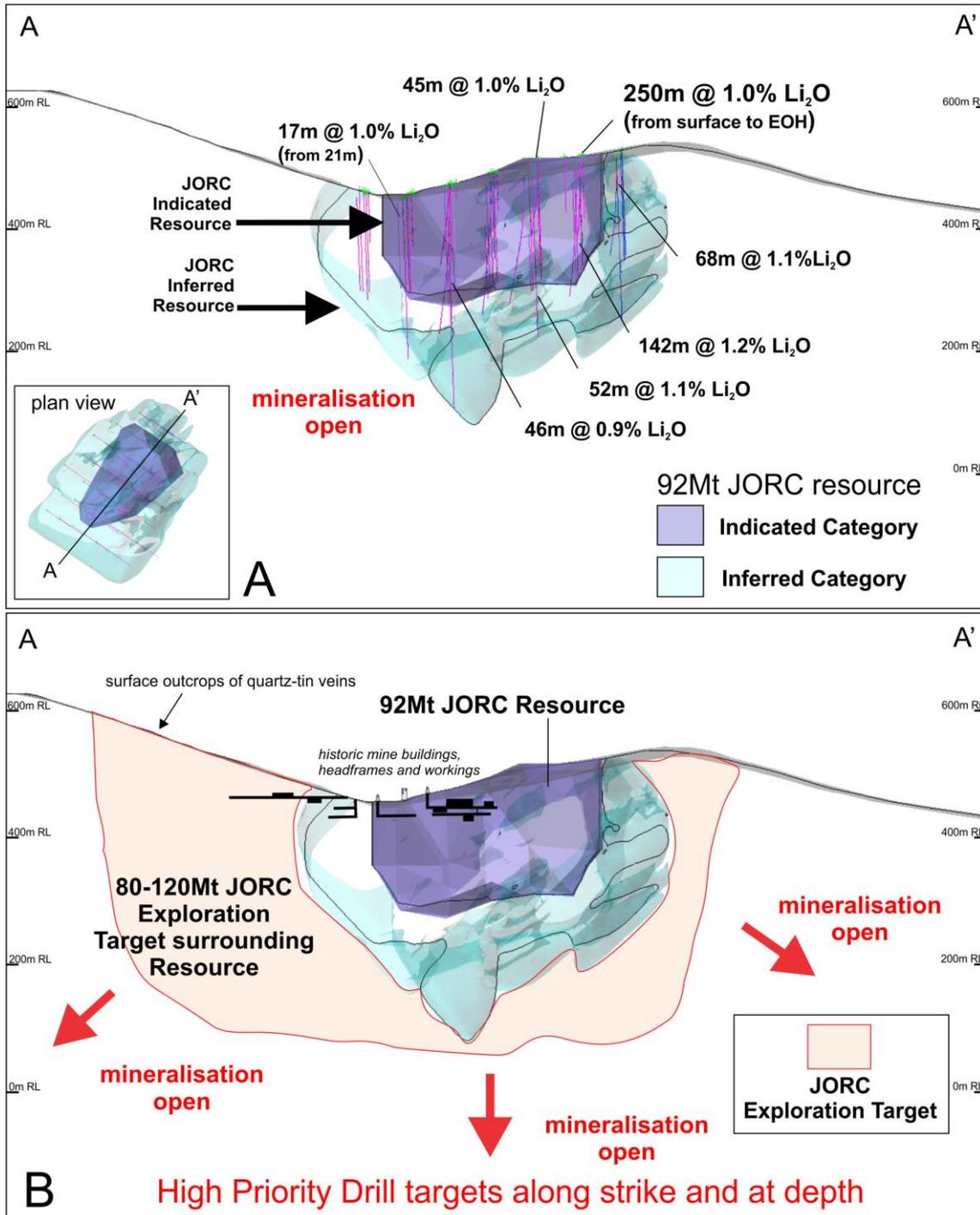


FIGURE 1: San Jose resource wireframes, exploration target and drilling in relation to topography and historical tin workings. Mineralisation hosting lithium surrounds the quartz-tin veins but is related to the same mineralisation event. Partial depletion of tin resources through historic mining has not affected lithium mineralisation.

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

**92.3Mt @ 0.60% 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;

**16.5Mt @ 0.9% Li<sub>2</sub>O (lithium oxide) and 0.04% Sn (tin)**

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The resource estimate for San Jose is shown below in Table 1;

**TABLE 1 SAN JOSE MINERAL RESOURCE, REPORTED ABOVE 0.1% LI CUT-OFF**

Classification	Tonnes (Mt)	Li (%)	Li <sub>2</sub> O (%)	Sn (%)
Indicated	23.9	0.31	0.67	0.02
Inferred	68.3	0.26	0.56	0.02
<b>TOTAL</b>	<b>92.3</b>	<b>0.27</b>	<b>0.60</b>	<b>0.02</b>

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

An additional Exploration Target has been estimated, with potential to double the known mineralisation at San Jose. This would cement San Jose as a globally significant lithium deposit.

Plymouth Executive Chairman Adrian Byass commented:

*“We are extremely excited to release the Maiden JORC Resource statement demonstrating that 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 good infrastructure. This opens the door for the next phase of work which is based on finalisation of confirmation testwork and open pit optimisations prior to lodgement of the Mining Licence Application, planned for September 2017.”*

San Jose is a 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 Minería (Valoriza), in an earn-in joint venture (JV) over the project. The operating company is Extremadura Mining (EM).



**FIGURE 2: Project location plan.**

### Resource Estimate

Snowden Mining Industry Consultants (Snowden) was retained by Plymouth to prepare a Mineral Resource estimate for its San Jose lithium-tin (Li-Sn) project. This has resulted in a global resource (Inferred and Indicated) that **estimates 11% more tonnes and 16.5% more contained lithium** than the historic Foreign Estimate of Mineralisation.

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Snowden Principal Consultant, Jeremy Peters, Competent Person for this estimate, visited the San Jose project and observed diamond drilling, geological logging, sampling and data recording procedures as well as the exposed lithium mica mineralisation as outcrop and the general site layout.

Snowden 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 Appendices, along with JORC Table 1. Snowden anticipates that the mineralised slates will be mined using bulk mining methods and believes that reporting the Mineral Resource using a 0.1% Li cut-off grade is appropriate.

Lithium (Li) mineralisation is commonly expressed as either lithium oxide ( $\text{Li}_2\text{O}$ ) or lithium carbonate ( $\text{Li}_2\text{CO}_3$ ) or Lithium Carbonate Equivalent (LCE)

Lithium Conversion: 1.0% Li = 2.153%  $\text{Li}_2\text{O}$ , 1.0% Li = 5.32%  $\text{Li}_2\text{CO}_3$

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 Plymouth undertook confirmation/twin drilling. Indicated mineralisation extends from surface. A total of 25% or 23.9Mt tonnes of the global Mineral Resource is classified as Indicated. The Indicated category mineralisation is important, as it will support a Pre-Feasibility Study, leading into Ore Reserve estimation, as defined by the JORC code.

Further drilling is expected to allow the reclassification of a substantial amount of material currently classified as Inferred and to Indicated as confidence in the historic drilling increases. In addition, it is anticipated that parts of the Exploration Target will be reclassified as Inferred through this proposed drill programme. The Indicated mineralisation is concentrated in the centre and from surface (Figure 3).

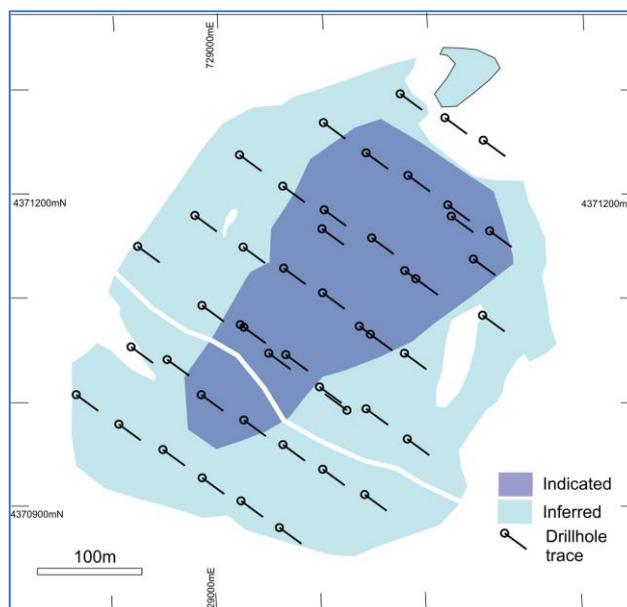


FIGURE 3: Plan view of San Jose showing drilling, distribution of resources showing indicated (dark blue), inferred (light blue) against drill pattern.

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## Exploration Target

The deposit has not been closed off by drilling and mineralisation remains open along strike and at depth and is host to very wide zones of mineralisation. Lithium mineralisation extends from surface to in excess of 350m vertically and in excess of 500m along strike.

The Exploration Target has been estimated based on review, interpretation and modelling of the available data and knowledge of the mineralisation system and geology. The concepts for the Exploration Target are summarised in the following paragraph:

Snowden has conjecturally derived an Exploration Target for San Jose, based on the observed geology to the southern side of the syncline that hosts the Mineral Resource Estimate (Table 2) and shown in Figure 1B. Snowden observes that identical lithology and alteration exists on the southern flank of the syncline and that tin mineralisation has been historically exploited in the same manner as it has on the northern side of the syncline. Snowden infers that the only geological reason for lithium mineralisation not being identified in this area is that it has not been drilled in recent years.

TABLE 2: SAN JOSE EXPLORATION TARGET

Component	Tonnage (Mt)		Grade ppm Li (Li <sub>2</sub> O)		Commodity
	From	To	From	To	
San Jose	80	120	3,000 (0.65%Li <sub>2</sub> O)	2,500 (0.54%Li <sub>2</sub> O)	Li

Disclaimer: The potential quantity and grade of the 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.

Snowden cautions that this Exploration Target is conjectural and speculative only and serves to indicate the scale of potential mineralisation within the project area, based on current geological understanding. This Exploration Target does not imply economic viability.

Plymouth will drill test extensions of known mineralisation and endeavour to convert the Exploration Target into JORC resources in this programme. The deposit is currently constrained by a lack of drilling and is open in strike and depth. Mineralisation extends over both tenements held within the JV (P.I. Valdefl6rez n6 10343-00 and P.I. Ampliaci6n a Valdefl6rez n6 10359-00). There is considerable exploration upside within each tenement. The tenure has been acquired for exploration and potential future process plant requirements.

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## 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 lithium-bearing mica host rock. Historic buildings used to exploit tin are still standing at San Jose although the mining operation was not large by modern standards (Figure 4).

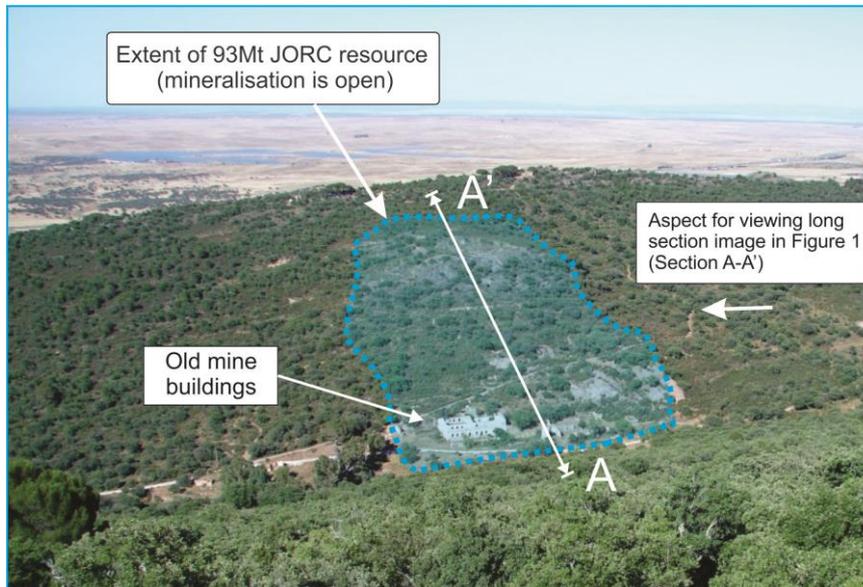


FIGURE 4: Photograph looking north over the San Jose deposit showing surface extent of JORC resource (open).

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. The majority of the San Jose deposit has been drilled on nominal 70mE x 45mN drill spacing, with the drill sections oriented northwest-southeast. 52 drill-holes have been drilled as at 17 April 2017, totalling approximately 10,468m in length. Approximately 80% of drilling is reverse circulation (RC) drilling, with the remainder being diamond drill holes (DDH). A Spanish company, Tolsa, first drilled San Jose for lithium in the early 1990s and Plymouth has since completed a confirmatory drilling program between December 2016 and March 2017.

Previous feasibility work at San Jose supported a Foreign Estimate of Mineralisation of 83.1Mt @ 0.56% Li<sub>2</sub>O for 1.15Mt LCE (ASX release June 2016). Plymouth believes that through continued exploration, it has a high probability of increasing the size of known mineralisation at San Jose. This is a priority for Plymouth and will be conducted in parallel with final metallurgical test work as well as the scheduled Mining Licence Application (estimated September 2017).

For more information, visit [www.plymouthminerals.com](http://www.plymouthminerals.com)

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### **About Plymouth Minerals' Lithium Project**

Plymouth has partnered with the large Spanish company Sacyr and its wholly owned subsidiary Valoriza Minería 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). Plymouth also retains an 80% interest in the Morille tungsten project in Spain which was extensively explored by Plymouth in 2013-2015.

San Jose is an advanced lithium project which is hosted in lithium-mica. A feasibility study completed in 1991 defined an open pit mining operation and a process flow sheet which produced lithium carbonate through acid-leach processing. This historical drilling, mining and processing study work highlights the differences with San Jose and many other hard rock style lithium deposits and highlights the advantages enjoyed by San Jose.

### **About Plymouth Minerals' Potash Projects**

Plymouth owns 100% of the Banio and Mamana Potash Projects, which are drill proven, high-grade, shallow potash deposits that are favourably located on the coast of Gabon and on major transport river ways (barge) with direct access to export ports. Banio has a multi-billion tonne Exploration Target of carnallite and sylvinites based on historical seismic and drilling data. Plymouth intends to drill test this Exploration Target.

### **Competent Persons Statement**

The information in this report that relates to Exploration Targets and Mineral Resources 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 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.

**Appendices 1: Collar Plan**

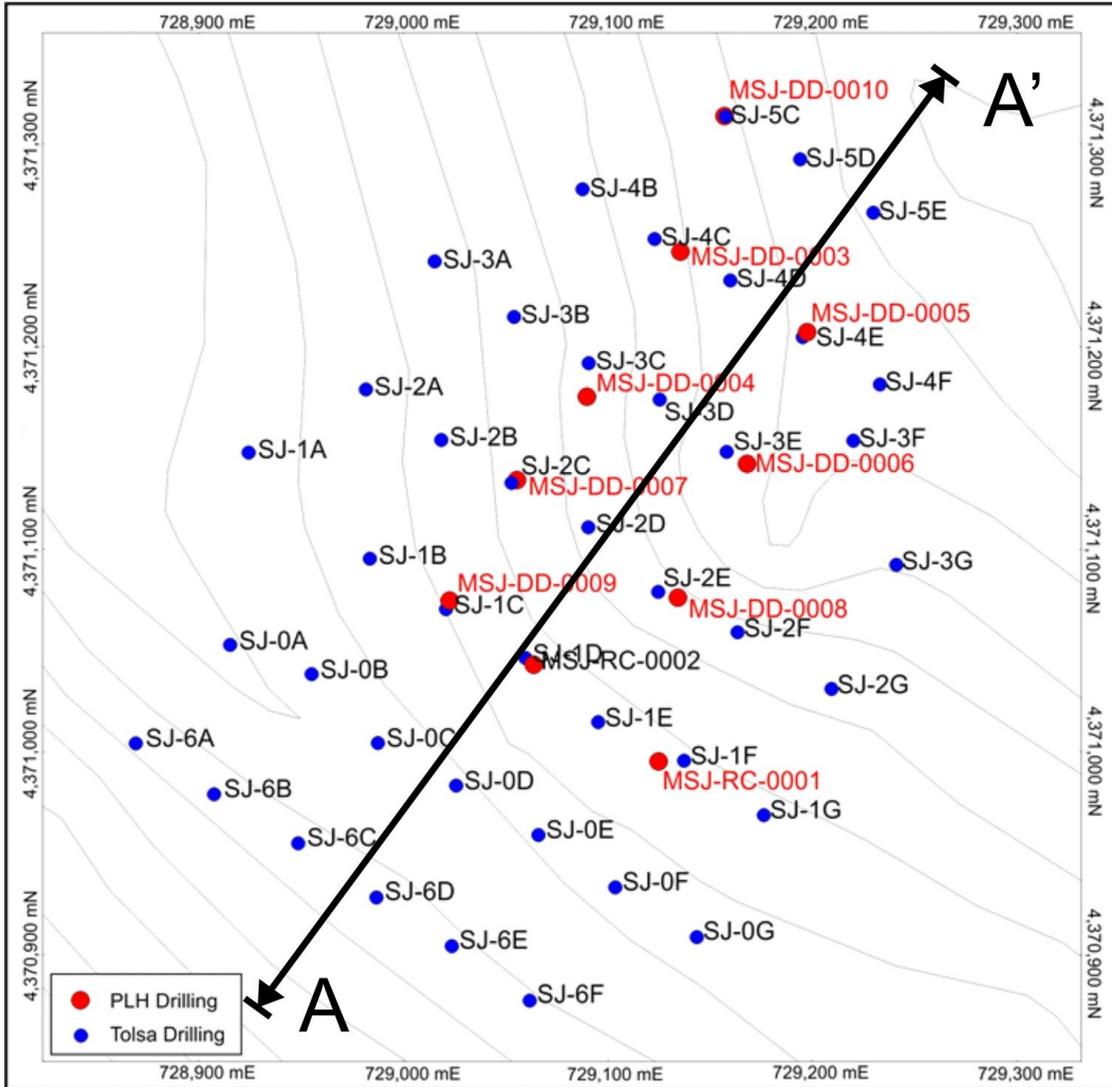


FIGURE 5: DRILL COLLAR PLAN OF SAN JOSE SHOWING TOLSA AND PLYMOUTH DRILLING. SECTION LINE A-A' AS SHOWN IN FIGURE 1A AND 1B

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## 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 20 mE x 20 mN x 10 mRL, with a minimum sub-block size of 1.25 mE x 1.25 mN x 0.625 mRL. 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 for the thin quartzite beds and quartz carbonate veins.

Snowden estimated Li, Cs, Sn and Fe grades using ordinary block kriging (parent cell estimates) using SURPAC software. A minimum of twelve and maximum of 32 samples was used for the initial search pass on a three pass search strategy.

The block grade estimates were validated both globally and locally to ensure that the estimates 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. Snowden considers this to be acceptable.

### BULK DENSITY

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 May 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 – a central zone of the resource where drill hole spacing is less than 70m by 45m and mineralisation is continuous down-dip.
- Inferred Resource – mineralisation that is constrained by a 1.0% 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 in most cases. Outside of this extrapolation and constrained within the mineralisation isoshell is considered Exploration Potential.

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

Item	JORC Code explanation	Comments
Sampling techniques	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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 in 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 a 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	<ul style="list-style-type: none"> <li><i>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.).</i></li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <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> <li>All drill holes have been logged in full.</li> </ul>

Item	JORC Code explanation	Comments
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <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 in 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 style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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 NH<sub>4</sub> 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 style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Snowden has not conducted any independent verification of the assay data.</li> <li>• The assay data from which the significant intercepts have been verified by Tolsa and Plymouth Geologists.</li> <li>• 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>• Procedures for all aspects of drilling, sampling and geological logging are documented by PLH.</li> <li>• Ten drillholes have been twinned by RC drillholes. Analysis of the twinned holes</li> </ul>

Item	JORC Code explanation	Comments
		<p>shows a reasonable comparison between the drilling techniques.</p> <ul style="list-style-type: none"> <li>• Values below the analytical detection limit were replaced with half the detection limit value. No other adjustments have been made to the assay data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No down hole survey information is available for historic holes. Historic Drill hole collar locations have been checked using historic drill plans and local grids verified with coordinates collected from historic holes with a DGPS.</li> <li>• Historic holes have been drilled according to a local grid. Local grid transform to ETRS Transverse Mercator Zone 29 co-ordinates are used.</li> <li>• Topographic survey has been done in local grid.</li> <li>• 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.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes have been drilled in a 70 * 48 m grid pattern.</li> <li>• The section spacing is sufficient to establish the degree of geological and grade continuity necessary to support the resource classifications that were applied.</li> <li>• The drilling was composited downhole using 2 m intervals.</li> <li>• Data spacing and distribution is sufficient to establish a degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The location and orientation of the majority of the Extremadura drilling is appropriate given the strike and morphology of the lithium slate mineralisation.</li> <li>• There are no known biases caused by the orientation of the drill holes.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• There are no details available regarding sample security of historical sampling.</li> <li>• Once received at the laboratory, samples were compared by the laboratory to the sample dispatch documents.</li> <li>• Snowden does not believe that sample security poses a material risk to the integrity of the assay data used in the Mineral Resource estimate.</li> </ul>
Audits and reviews	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Historic data has been reviewed by Plymouth Geologists.</li> <li>• Snowden is not aware of any other independent reviews of the drilling, sampling and assaying protocols, or the assay database, for the Extremadura project.</li> </ul>

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

Item	JORC Code explanation	Comments
Mineral tenement and land tenure	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>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 Minería. Plymouth Minerals has an earn-in and Joint Venture Agreement with Valoriza Minería (ASX announcement 14 June 2016). The Investigation Permit is in good standing.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>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-montebrazite 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-montebrazite of the veins.</li> <li>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.</li> </ul>
Drillhole information	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results being reported.</li> </ul>

Item	JORC Code explanation	Comments
	<i>why this is the case.</i>	
Data aggregation methods	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No exploration results being reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>No exploration results being reported.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to figures in main summary.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No exploration results being reported.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No exploration results being reported.</li> </ul>
Further work	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Snowden recommends that Plymouth expand the Indicated Mineral Resource through infill drilling and undertake preliminary geotechnical examination, leading to progression of a Scoping Study.</li> </ul>

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

Item	JORC Code explanation	Comments
Database integrity	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Snowden undertook a basic check of the data for potential errors as a preliminary step to compiling the resource estimate. No significant flaws were identified.</li> </ul>
Site visits	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Snowden Principal Consultant, Jeremy Peters, visited the Extremadura project on 18 October 2016, observing the exposed Li bearing slate as outcrop and the overall geometry and nature of the mineralisation.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Snowden 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>Mineralisation isoshells were created using Datamine software applying kriging techniques based on the main direction of grade continuity. The isoshells applied Li thresholds between 0.1 to 0.5% Li.</li> <li>An isoshell based on a Li threshold of 0.1% Li 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 Snowden as validated solids. These zones were domained 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 Snowden as validated surfaces. These were used to generate solids, assuming a thickness of 0.5 m. This average thickness is based on observations during the site visit along with advice from Plymouth. It is assumed that the full extent of these veins has been mined out and the volume has been excluded from the Mineral Resource.</li> <li>Outcrops and exposure of the Li enriched slates and quartzite confirm the validity of the geological interpretation based on the drilling.</li> <li>Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised envelopes in terms of the reported classified resources.</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling at the Extremadura deposit extends over a strike distance of 420m and includes the 420m vertical interval from 530m to 110m.</li> <li>Mineralisation is hosted within the slate (bearing 220°) the quartzite (bearing</li> </ul>

Item	JORC Code explanation	Comments
Estimation and modelling techniques	<ul style="list-style-type: none"> <li><i>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 method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i></li> </ul>	<p>300°) and the quartz veins (bearing 220°)</p> <ul style="list-style-type: none"> <li>Estimation of Li, Fe, Sn<sub>3</sub> and Cs 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. Dynamic anisotropy was used to locally adjust the search ellipse and variogram orientation based on the local dip and dip direction of the geological interpretation. Grade estimation was completed using Datamine Studio 3 (Datamine) software.</li> <li>High grade cuts were applied to Fe (15%), Sn (5,000ppm) and Cs (9,000ppm)</li> <li>A Surpac block model was used was created 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 modelling of thin quartz veins parallel to the main mineralisation trend</li> <li>Block model constructed using a parent block size of 15 mE by 15 mN by 2.5 mRL based on half the nominal drillhole spacing along with an assessment of the grade continuity. The search ellipse orientation and radius was based on the results of the grade continuity analysis, with the same search neighbourhood parameters used for all elements to maintain the metal balance and correlations between elements. An initial search of 60 m by 60 m by 10 m thick was used, with a minimum of 12 and maximum of 32 samples. The number of samples per drillhole was limited to four.</li> <li>Lithium mineralisation was modelled as an isoshell based on a 0.1% Li threshold.</li> <li>Quartz and quartzite zones were attributed to the model based on solid wireframes.</li> <li>Grade estimates were validated against the input drillhole composites (globally and using grade trend plots) and show a good comparison.</li> <li>A previous resource estimate was completed in 1993. Whilst the procedures and parameters used for resource estimation aren't available, the average grade and tonnes are still comparable.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>All tonnages have been estimated as dry tonnages.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <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 and the use of the same cut-off for Li resources of a similar nature. Snowden notes that the sensitivity of the Mineral Resource to the reporting cut-off grade is minimal at cut-offs below 0.1% Li.</li> </ul>

Item	JORC Code explanation	Comments
Mining factors and assumptions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation is amenable to conventional truck and shovel mining techniques and no complications have been observed at this stage.</li> </ul>
Metallurgical factors and assumptions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Snowden 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	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The project has not advanced to the stage where concrete options are being examined, Snowden's questioning of Spanish staff indicates that there is no consideration that licensing will be unduly onerous.</li> </ul>
Bulk density	<ul style="list-style-type: none"> <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.), 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 style="list-style-type: none"> <li>Variograms for bulk density are poor as a result to a limited sample number based on lithology (374 samples total)</li> <li>Correlation between bulk density and grade was analysed and 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>33</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> </ul>

Item	JORC Code explanation	Comments
Classification	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>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).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been classified as a combination of Indicated and Inferred Resources using the following criteria               <ol style="list-style-type: none"> <li>Indicated Resource – a central zone of the resource where drill hole spacing is reduced below 70m by 45m and mineralisation is continuous down-dip.</li> <li>Inferred Resource - the majority of the resource constrained by the 1,250ppm 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 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, along with the drillhole spacing and data quality.</li> <li>The Mineral Resource classification appropriately reflects the view of the Competent Person.</li> </ul>
Audits and reviews	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate has been peer reviewed as part of Snowden's standard internal peer review process.</li> <li>Snowden is not aware of any external reviews of the Extremadura Resource estimate.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been validated both globally and locally against the input composite data. 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 is required to assess the confidence of the short range grade continuity.</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>