BY-PRODUCT MINERAL RESOURCE ESTIMATES

- **By-Product Mineral Resource estimates completed for quartz, feldspar and mica**
- **By-Product Mineral Resources are wholly-contained within existing Mineral Resource model**
- **Previously announced metallurgical testwork demonstrates commercial value of by-products**
- **Scoping Study update to include by-products due within Q3 2018**

Piedmont Lithium Limited ("Piedmont" or "Company") is pleased to announce Mineral Resource estimates for by-product quartz, feldspar and mica mineral products from the spodumene bearing pegmatite on its Core Property. These Mineral Resource estimates are based on the same geologic model that resulted in a maiden Mineral Resource estimate for lithium of **16.2 Mt @ 1.12% Li$_2$O** which was previously announced on June 14, 2018.

By-Product Mineral Resource estimates were based on normative mineralogy compositions for 2,289 samples in 231 drill holes previously analysed for lithium. The results are shown in Table 1. The Mineral Resource estimates have been prepared by independent consultants, CSA Global Pty Ltd ("CSA Global") and are reported in accordance with the JORC Code (2012 Edition).

Table 1: Mineral Resource Estimates for By-Products – Piedmont Lithium Project							
Category	Tonnes (Mt)	Quartz		Feldspar		Mica	
		Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)
Indicated	8.50	30.3	2.57	43.5	3.69	4.4	0.38
Inferred	7.69	30.0	2.31	44.4	3.41	4.5	0.34
Total	**16.19**	**30.1**	**4.88**	**43.9**	**7.11**	**4.5**	**0.72**

The industrial minerals represented by Piedmont's by-product Mineral Resource Estimates are fundamental inputs for regional industries that Piedmont can economically service given its location in the heart of the Mid-Atlantic industrial corridor. Piedmont is now updating the Scoping Study released on July 18, 2018 to reflect the production of by-product quartz, feldspar and mica, and expects to release this update within the coming days.

Keith D. Phillips, President and Chief Executive Officer, said, "*Having confirmed a flow sheet to recover by-product quartz, feldspar and mica, we have now demonstrated a large-scale resource for each. We look forward to releasing an amended Scoping Study in the next several weeks and expect the update to further highlight the important advantages of our unique location.*"

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Quartz

Quartz (also known as silica) is produced commercially from a wide variety of deposits, including pegmatite. Silica sand and quartz are economical sources of silica (SiO_2) used in glass and ceramics manufacture. Key deleterious elements include iron (Fe) and titanium (Ti). Table 2 provides general market specifications for different quartz qualities and summary quartz quality from Piedmont's previously announced bench-scale metallurgical testwork results.

Table 2: Bench-Scale Quartz Concentrate Results and General Market Specifications for Silica and Quartz			
Specification	SiO_2 Min (%)	Other Elements Max (%)	Other Elements Max (ppm)
Piedmont bench-scale quartz quality (range)	99.7-99.8	0.2-0.3	2,000-3,000
Clear glass-grade sand	99.5	0.5	5,000
Semiconductor filler, LCD and optical glass	99.8	0.2	2,000
"Low Grade" high purity quartz ("HPQ")	99.95	0.05	500
"Medium Grade" HPQ	99.99	0.01	100
"High Grade" HPQ	99.997	0.003	30

Feldspar

Feldspar is produced commercially from rocks of granitic composition such as pegmatite in addition to feldspar quartz sands. Feldspar may be used as a source of aluminium (Al), sodium (Na), potassium (K) and silicon (Si) in the manufacture of glass and in ceramics. Feldspar finds application as a functional filler in products such as paint and plastics. Table 3 provides representative market specifications for feldspar and the range of qualities exhibited by bench-scale metallurgical results previously reported by Piedmont.

| Table 3: Bench-Scale Feldspar Concentrate Results and Examples of Feldspar Product Specifications						
Product	Al_2O_3 (%)	Fe_2O_3 (%)	CaO (%)	K_2O (%)	Na_2O (%)	K_2O+Na_2O (%)
Piedmont bench-scale feldspar quality (range)	18.5-18.6	0.01-0.02	0.07-0.12	3.81-3.99	8.35-8.49	12.26-12.34
K-spar (North Carolina)	18.0	0.07	0.14	10.1	3.6	13.7
Na-spar (North Carolina)	19.0	0.07	1.6	4.0	7.0	11.0

Mica

Mica occurs as several minerals (e.g. biotite, phlogopite or muscovite). Muscovite is most commonly sourced from pegmatites and granitic rocks and finds application as an insulator, in fillers, in plastics, paint and drilling mud. Specifications for mica include particle size distribution, colour, mechanical strength and bulk density. As a rule of thumb, milled (ground) mica for oil drilling is coarse (10 mesh); medium to fine powder for welding rods (60 mesh); very fine powder for paint and plastics (325 mesh). General quality specifications for Piedmont mica based on previously reported bench-scale metallurgical results are shown in Table 4.

Table 4: Bench Scale Mica Physical Properties Results		
Parameter	Unit	Optimized Value
Particle Size	Medium to Very Fine	60 – 325 Mesh
Bulk Density	g/cm³	0.681-0.682
Grit	%	0.70-0.79
Photovoltmeter	Green Reflectance	11.2-11.6
Hunter Value	± a Redness(+) Greenness(-)	0.27-2.27
Hunter Value	± b Yellowness(+) Blueness(-)	44.77-46.07

About Piedmont Lithium

Piedmont Lithium Limited (ASX: PLL; Nasdaq: PLLL) holds a 100% interest in the Piedmont Lithium Project ("Project") located within the world-class Carolina Tin-Spodumene Belt ("TSB") and along trend to the Hallman Beam and Kings Mountain mines, historically providing most of the western world's lithium between the 1950s and the 1980s. The TSB has been described as one of the largest lithium provinces in the world and is located approximately 25 miles west of Charlotte, North Carolina. It is a premier location to be developing and integrated lithium business based on its favourable geology, proven metallurgy and easy access to infrastructure, power, R&D centres for lithium and battery storage, major high-tech population centres and downstream lithium processing facilities.
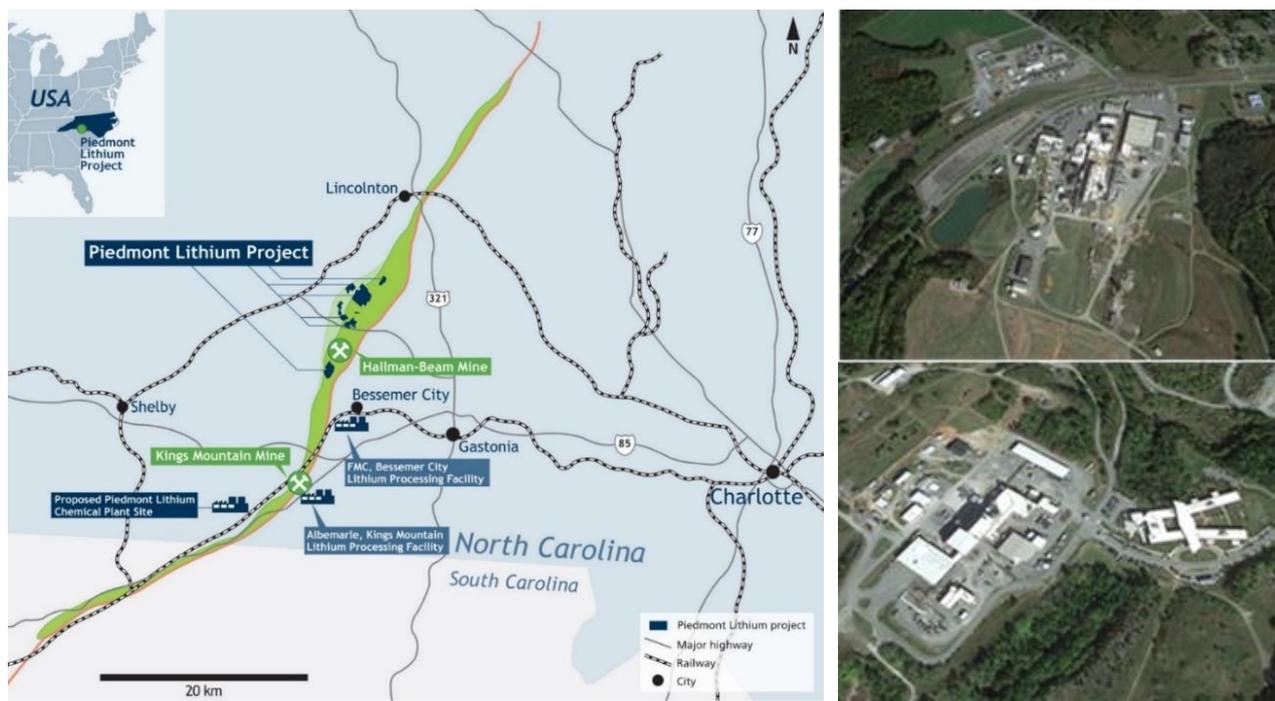
Piedmont Lithium Location and Bessemer City Lithium Processing Plant (FMC, Top Right) and Kings Mountain Lithium Processing Facility (Albemarle, Bottom Right)

Forward Looking Statements

This announcement may include forward-looking statements. These forward-looking statements are based on Piedmont's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Piedmont, which could cause actual results to differ materially from such statements. Piedmont makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.

Competent Persons Statement

The information in this report that relates to By-Product Mineral Resources is based on, and fairly represents, information compiled or reviewed by Mr. Leon McGarry, a Competent Person who is a Professional Geoscientist (P.Geo.) and registered member of the 'Association of Professional Geoscientists of Ontario' (APGO no. 2348), a 'Recognized Professional Organization' (RPO). Mr. McGarry is a Senior Resource Geologist and full-time employee at CSA Global Geoscience Canada Ltd. Mr. McGarry has sufficient experience which is relevant to the style of mineralization 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 'Australasian Code for Reporting of Mineral Resources and Ore Reserves'. Mr. McGarry consents to the inclusion in this report of the results of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to By-Product Metallurgical Testwork Results is extracted from the Company's ASX announcement dated September 4, 2018 which is available to view on the Company's website at www.piedmontlithium.com. The information in the original ASX announcement that related to By-Product Metallurgical Testwork Results was based on, and fairly represents, information compiled or reviewed by Dr. Hamid Akbari, a Competent Person who is a Registered Member of the 'Society for Mining, Metallurgy and Exploration', a 'Recognized Professional Organization' (RPO). Dr. Akbari is a consultant to the Company. Dr. Akbari has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

The information in this announcement that relates to Lithium Mineral Resources is extracted from the Company's ASX announcement dated June 14, 2018 which is available to view on the Company's website at www.piedmontlithium.com. The information in the original ASX announcement that related to Lithium Mineral Resources was based on, and fairly represents, information compiled by Mr Leon McGarry, a Competent Person who is a Professional Geoscientist (P.Geo.) and registered member of the 'Association of Professional Geoscientists of Ontario' (APGO no. 2348), a 'Recognized Professional Organization' (RPO). Mr McGarry is a Senior Resource Geologist and full-time employee at CSA Global Geoscience Canada Ltd. Mr McGarry has sufficient experience which is relevant to the style of mineralization 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 'Australasian Code for Reporting of Mineral Resources and Ore Reserves'.

Piedmont confirms that: a) it is not aware of any new information or data that materially affects the information included in the original ASX announcements; b) all material assumptions and technical parameters underpinning Mineral Resources, Exploration Targets, Production Targets, and related forecast financial information derived from Production Targets included in the original ASX announcements continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially modified from the original ASX announcements.

Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources

The information contained herein has been prepared in accordance with the requirements of the securities laws in effect in Australia, which differ from the requirements of United States securities laws. The terms "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are Australian mining terms defined in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). However, these terms are not defined in Industry Guide 7 ("SEC Industry Guide 7") under the U.S. Securities Act of 1933, as amended (the "U.S. Securities Act"), and are normally not permitted to be used in reports and filings with the U.S. Securities and Exchange Commission ("SEC"). Accordingly, information contained herein that describes Piedmont's mineral deposits may not be comparable to similar information made public by U.S. companies subject to reporting and disclosure requirements under the U.S. federal securities laws and the rules and regulations thereunder. U.S. investors are urged to consider closely the disclosure in Piedmont's Form 20-F, a copy of which may be obtained from Piedmont or from the EDGAR system on the SEC's website at http://www.sec.gov/.

Summary of Resource Estimate and Reporting Criteria

This ASX announcement has been prepared in compliance with JORC Code 2012 Edition and the ASX Listing Rules. The Company has included in Annexure A, the Table Checklist of Assessment and Reporting Criteria for the Piedmont Lithium Project as prescribed by the JORC Code 2012 Edition and the ASX Listing Rules.

The following is a summary of the pertinent information used in the MRE with the full details provided in Table 1 included as Annexure A.

Geology and Geological Interpretation

Regionally, the Carolina Tin-Spodumene belt extends for 40 kilometers along the litho tectonic boundary between the Inner Piedmont and Kings Mountain belts. The mineralized pegmatites are thought to be concurrent and cross-cutting dike swarms extending from the Cherryville granite Figure 1, as the dikes progressed further from their sources, they became increasingly enriched in incompatible elements such as lithium (Li) and tin (Sn). The dikes are considered to be unzoned.

Figure 1: Regional Location Map

On the property scale, spodumene pegmatites are hosted in a fine to medium grained, weakly to moderately foliated, biotite, hornblende, quartz feldspar gneiss or commonly referred to as amphibolite. The spodumene pegmatites range from fine grained (aplite) to very coarse-grained pegmatite. The primary mineralogy and compositional averages for the modelled resource pegmatites are summarized in Table 5.

Table 5: Mineralogy and Compositional Averages for the Modelled Resource Pegmatites	
Secondary Mineral	Compositional Average (%)
Spodumene	14.4
Quartz	30.1
Albite	34.9
K-spar	9.0
Muscovite	4.5
Biotite	1.8
Other	5.4

Drilling and Sampling Techniques

To date a total of 248 diamond core holes have been drilled totalling 37,837 meters. The table below shows the breakdown of drilling with regards to the historic drilling completed by North Arrow Minerals and the subsequent drilling programs completed by Piedmont Lithium.

Table 6: Drilling campaigns undertaken by Piedmont and historical data included in MRE				
Phase	No. Holes	Exploratory Drilling (m)	Infill Drilling (m)	Total Length Drilled (m)
Historical	19	2,544.0	-	2,544.0
Phase 1	12	1,667.0	-	1,667.0
Phase 2	93	12,262.7	-	12,262.7
Phase 3	124	5,490.7	15,872.5	21,363.2
Total	**248**	**21964.4**	**15,872.5**	**37,836.9**

All diamond drill holes were collared with HQ and were transitioned to NQ once non-weathered and unoxidized bedrock was encountered. Drill core was recovered from surface.

Oriented core was collected on select drill holes using the REFLEX ACT III tool by a qualified geologist at the drill rig. This data was highly beneficial in the interpretation of the pegmatite dikes.

Spacing of drill holes varied for each drilling phase. The historic and Phase 1 drilling were exploratory in nature where Phase 2 drilling started to identify the mineralized trend at 80 by 40 meters spacing. The infill drilling of Phase 3 targeted a 40 by 40 meter grid spacing.

Drill collars were located with the differential global positioning system (DGPS) with the Trimble Geo 7 unit which resulted in accuracies <1 meter. All coordinates were collected in State Plane and re-projected to Nad83 zone17 in which they are reported.

Down hole surveying was performed on each hole using a REFLEX EZ-Trac multi-shot instrument. Readings were taken approx. every 15 meters (50 feet) and recorded depth, azimuth, and inclination. All holes were geologically and geotechnically logged. All holes were photographed prior to

sampling. Sampled zones were subsequently photographed a second time after the samples had been marked.

Sample Analysis Method

Normative mineralogy was calculated from total fusion X-ray fluorescence (XRF) major element data using a least squares method (MINSQ – Herrmann, W. and Berry, R.F., 2002, Geochemistry: Exploration, Environment, Analysis, volume 2, pp. 361-368). The normative calculations were validated against and corrected where necessary using X-ray diffraction (XRD) Rietveld semi-quantitative mineralogical data from 38 sample pulps selected to represent a range of chemical compositions and mineralogy, as well as 3 QEMSCAN analyses of composite samples prepared for metallurgical test work.

Resource Estimation Methodology

Lithological and structural features were defined based upon geological knowledge of the deposit derived from drill core logs and geological observations on surface. Models of pegmatite dikes, weathering profiles and bulk densities generated for the previously released Maiden Mineral Resource Study announced on June 14, 2018 were used for this study.

A rotated block model orientated to 35 degrees was constructed in Datamine StudioRM® that encompasses all modelled dikes using a parent cell size of 5 m (E) by 10 m (N) by 5 m (Z). The drill hole files were flagged by the pegmatite and weathering domains they intersected. Statistical analysis of the domained data was undertaken in SuperVisor®. Samples were regularised to 1 meter composite lengths. Regularised weight percent mineral grades within the pegmatite model were analysed to confirm the suitability of the Inverse Distance interpolation method also used for the previously released Maiden Mineral Resource Study announced on June 14, 2018. For each modelled pegmatite, regularised compositional grades for spodumene, quartz, albite, K-spar and muscovite were interpolated into the corresponding pegmatite block model along with grades for biotite and other gangue minerals. Albite and K-spar grade estimates are summed to generate a compositional grade estimate for feldspar.

Block grade interpolation was validated by means of swath plots, comparison of sample and block model mineral grade averages and correlation coefficients, and by overlapping mineral grade distribution charts for sample and block model data. Cross sections of the block model with drill hole data superimposed were also reviewed.

Classification Criteria

Resource classification parameters are based on the validity and robustness of input data and the estimator's judgment with respect to the proximity of resource blocks to sample locations and confidence with respect to the geological continuity of the pegmatite interpretations and grade estimates.

All blocks captured in pegmatite dike interpretation wireframes below the topography surface are classified as Inferred.

Indicated classification boundaries that define a region of blocks that, overall, meet the following criteria: Within major pegmatite dikes with along strike and down dip continuity greater than 200 meters and 50 meters respectively and with a true thickness greater than 2.5 meters; and are informed by at least two drill holes and eight samples within a range of approximately 20 meters to the nearest drill hole in the along strike or strike and downdip directions.

No Measured category resources are estimated.

<u>Cut-Off Grades</u>

The economic extraction of by-product minerals is contingent on the economic extraction of Lithium mineral resources at the project. Accordingly, the By-Product Mineral Resource Estimate is reported at a 0.4% Li_2O cut-off grade, in line with lithium cut off grades utilized at comparable deposits.

Compositional grade and tonnage estimates for by-product mineral resources are presented in Table 7.

Table 7: Mineral Resource Estimate – Piedmont Lithium Project									
Category	Tonnes (Mt)	Li_2O		Quartz		Feldspar		Mica	
		Grade (%)	Tonnes (t)	Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)	Grade (%)	Tonnes (Mt)
Indicated	8.50	1.15	98,000	30.3	2.57	43.5	3.69	4.4	0.38
Inferred	7.69	1.09	84,000	30.0	2.31	44.4	3.41	4.5	0.34
Total	16.19	1.12	182,000	30.1	4.88	43.9	7.11	4.5	0.72

<u>Mining and Metallurgical methods and parameters</u>

The depth, geometry and grade of pegmatites at the property make them amenable to exploitation by open cut mining methods. Inspection of drill cores and the close proximity of open pit mines in similar rock formations indicate that ground conditions are suitable for this mining method.

The economic extraction of by-product minerals is contingent on the economic extraction of Lithium mineral resources at the project. Accordingly, the resource is constrained by a conceptual pit shell derived from a Whittle optimisation using a revenue factor (USD$750/t for a nominal 6% Li_2O concentrate). Material falling outside of this shell is considered to not meet reasonable prospects for eventual economic extraction. Piedmont have elected to conserve select drainage features on the property. Blocks that would impact these features if mined by open pit methods have been excluded from the estimate.

Reasonable prospects for metallurgical recovery of spodumene and by-product minerals are supported by the results of the bulk sampling and metallurgical test work program undertaken by Piedmont Lithium in 2018 at North Carolina State Mineral Research Laboratory.

<u>Additional Information on Industrial Minerals</u>

Quartz, muscovite mica and feldspar occur as essential rock-forming minerals of the Piedmont lithium pegmatites and, as illustrated in Table 5, comprise approximately 80% of the mineral assemblage and estimated Mineral Resources that are reported in Table 1.

Feldspar and mica have been historically mined and produced from Carolina pegmatites (Potter, 2007) who described lithium pegmatites located northwest of Kings Mountain which were mined until 1998. The lithium pegmatite feed grade quoted to be 20% spodumene, 32% quartz, 27% albite, 14% microcline, 6% muscovite, and 1% trace minerals. The 'fairly' uniform grade of the crude ore allowed recovery of feldspar and mica by-products."

Although Mineral Resource tonnes and grade are key metrics for assessing lithium pegmatite projects, if by products are under consideration attributes such as product size distribution, chemical composition, purity and colour should be evaluated to allow consideration of product specifications and product marketability (Scogings, 2014).

For example, the ratio K to Na is a parameter that affects product application for feldspars in markets such as glass (high Na / K) and ceramics (high K / Na). Chemical purity may also, for example, be based on Fe_2O_3 content, which is the most common specification cited for quartz (silica) applications in glass manufacture.

Clause 49 of the JORC Code (2012) requires that minerals such as feldspar, quartz and mica that are produced and sold according to product specifications be reported "in terms of the mineral or minerals on which the project is to be based and must include the specification of those minerals". Clause 49 also states that "It may be necessary, prior to the reporting of a Mineral Resource or Ore Reserve, to take particular account of certain key characteristics or qualities such as likely product specifications, proximity to markets and general product marketability".

Likely product specifications and marketability of quartz, feldspar and mica at the Piedmont deposit are supported by the results of the bulk sampling and metallurgical test work program undertaken by Piedmont Lithium in 2018 at North Carolina State Mineral Research Laboratory announced on September 4, 2018.

Appendix 2: JORC Table 1 Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	> *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* > *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* > *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	All results reported are from diamond core samples. The core was sawn at an orientation not influenced by the distribution of mineralization within the drill core (i.e. bisecting mineralized veins or cut perpendicular to a fabric in the rock that is independent of mineralization, such as foliation). Diamond drilling provided continuous core which allowed continuous sampling of mineralized zones. The core sample intervals were a minimum of 0.35m and a maximum of 1.5m for HQ or NQ drill core (except in saprolitic areas of poor recovery where sample intervals may exceed 1.5m in length) and took into account lithological boundaries (i.e. sample was to, and not across, major contacts). Standards and blanks were inserted into the sample stream to assess the accuracy, precision and methodology of the external laboratories used. In addition, field duplicate samples were inserted to assess the variability of the mineralisation., The laboratories undertake their own duplicate sampling as part of their internal QA/QC processes. Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratories providing acceptable levels of precision and accuracy. Sampling techniques employed for metallurgical samples are described in the September 4, 2018 report on bench-scale metallurgical testwork results.
Drilling techniques	> *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	All diamond drill holes were collared with HQ and were transitioned to NQ once non-weathered and unoxidized bedrock was encountered. Drill core was recovered from surface. Oriented core was collected on select drill holes using the REFLEX ACT III tool by a qualified geologist at the drill rig. The orientation data is currently being evaluated.
Drill sample recovery	> *Method of recording and assessing core and chip sample recoveries and results assessed.* > *Measures taken to maximise sample recovery and ensure representative nature of the samples.* > *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	The core was transported from the drill site to the logging facility in covered boxes with the utmost care. Once at the logging facility, the following procedures were carried out on the core: 1. Re-aligning the broken core in its original position as closely as possible. 2. The length of recovered core was measured, and meter marks clearly placed on the core to indicate depth to the nearest centimetre. 3. The length of core recovered was used to determine the core recovery, which is the length of core recovered divided by the interval drilled (as indicated by the footage marks which was converted to meter marks), expressed as a percentage. This data was recorded in the database. The core was photographed wet before logged. 4. The core was photographed again immediately before sampling with the sample numbers visible. Sample recovery was consistently good except for zones within the oxidized clay and saprolite zones. These zones were generally within the top 20m of the hole. No relationship is recognized between recovery and grade. The drill holes were designed to intersect the targeted pegmatite below the oxidized zone.
Logging	> *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* > *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* > *The total length and percentage of the relevant intersections logged.*	Geologically, data was collected in detail, sufficient to aid in Mineral Resource estimation. Core logging consisted of marking the core, describing lithologies, geologic features, percentage of spodumene and structural features measured to core axis. The core was photographed wet before logging and again immediately before sampling with the sample numbers visible. All the core from the two hundred and forty-eight holes reported was logged.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	> *If core, whether cut or sawn and whether quarter, half or all core taken.* > *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* > *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* > *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* > *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* > *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Core was cut in half with a diamond saw. Standard sample intervals were a minimum of 0.35m and a maximum of 1.5m for HQ or NQ drill core, taking into account lithological boundaries (i.e. sample to, and not across, major contacts). The preparation code is CRU21/CRU26 (crush to 75% of sample <2mm) and PUL45 (pulverize 250g to 85% <75 microns). A CRM or coarse blank was included at the rate of one for every 20 drill core samples (i.e. 5%). Sampling precision is monitored by selecting a sample interval likely to be mineralized and splitting the sample into two ¼ core duplicate samples over the same sample interval. These samples are consecutively numbered after the primary sample and recorded in the sample database as "field duplicates" and the primary sample number recorded. Field duplicates were collected at the rate of 1 in 20 samples when sampling mineralized drill core intervals. Samples were numbered sequentially with no duplicates and no missing numbers. Triple tag books using 9-digit numbers were used, with one tag inserted into the sample bag and one tag stapled or otherwise affixed into the core tray at the interval the sample was collected. Samples were placed inside pre-numbered sample bags with numbers coinciding to the sample tag. Quality control (QC) samples, consisting of certified reference materials (CRMs), were given sample numbers within the sample stream so that they are masked from the laboratory after sample preparation and to avoid any duplication of sample numbers. Sub-sampling and sample preparation techniques employed for metallurgical samples are described in the September 4, 2018 report on bench-scale metallurgical testwork results.
Quality of assay data and laboratory tests	> *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* > *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* > *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Selected pulp samples previously analysed for Li were either shipped to the SGS laboratory in Lakefield, Ontario or were already held in storage there. The analyses code was GO XRF76V (borate fusion followed by XRF analysis)), which has a range for major elements of 0.01 to 100% (. Accuracy monitoring was achieved through submission and monitoring of certified reference materials (CRMs) supplied by Geostats Pty Ltd of Perth, Western Australia at the same submission rate as previously used for Li assays. Given limited suitability of these CRM for major element analyses, laboratory CRM were also evaluated. Details of the CRMs are provided below along with average biases of the CRM data relative to certified values using the same or similar digestion and analytical methods. The CRMs were submitted as "blind" control samples not identifiable by the laboratory. Details of CRMs used in the drill program (all values pct):

CRM	Manufacturer	Certified Value (%)	1 Std Dev (%)	Avg. Relative Bias (%)
GTA-01 Na-peroxide fusion	Geostats (SiO2)	73.4	1.8	-1.6
GTA-02 Na-peroxide fusion	Geostats (SiO2)	71.7	1.0	-0.6
GTA-04 Na-peroxide fusion	Geostats (SiO2)	73.6	0.86	-0.9
GTA-06 Na-peroxide fusion	Geostats (SiO2)	73.8	1.5	-0.7
GTA-09 Na-peroxide fusion	Geostats (SiO2)	71.6	1	0.1
Oreas-160 Na-peroxide fusion	Ore Research & Exploration (SiO2)	88.7	4.8	0.2
Oreas-24a Fusion XRF	Ore Research & Exploration (SiO2)	66.3	0.3	-0.4
SY-4	Canmet (SiO2)	49.9	0.1*	0
Oreas-160 Na-peroxide fusion	Ore Research & Exploration (Al2O3)	5.0	0.1	0.7
Oreas-24a Fusion XRF	Ore Research & Exploration (Al2O3)	15.2	0.1	-0.9
GTA-04 4-acid digestion	Geostats (Na2O)	1.8	0.04	-0.1
Oreas-24a Fusion XRF	Ore Research & Exploration (Na2O)	1.2	0.02	-1.7
GTA-04 4-acid digestion	Geostats (K2O)	3.4	0.1	0.6
Oreas-24a Fusion XRF	Ore Research & Exploration (K2O)	3.4	0.03	-0.7

Criteria	JORC Code explanation	Commentary
		Sampling precision was monitored by selecting a sample interval likely to be mineralized and splitting the sample into two ¼ core duplicate samples over the same sample interval. These samples were consecutively numbered after the primary sample and recorded in the sample database as "field duplicates" and the primary sample number recorded. Field duplicates were collected at the rate of 1 in 20 samples when sampling mineralized drill core intervals. Analytical precision was also monitored using pulp duplicates, sometimes referred to as replicates or repeats, supplied by the laboratory. Data from both types of duplicate analyses was used to constrain sampling variance at different stages of the sampling and preparation process.
		Examination of the QA/QC sample data indicates satisfactory performance of field sampling protocols and assay laboratories providing acceptable levels of precision and accuracy.
		Assaying and laboratory procedures, and the nature of quality control procedures, used for metallurgical test work are described in the September 4, 2018 report.
Verification of sampling and assaying	> The verification of significant intersections by either independent or alternative company personnel. > The use of twinned holes. > Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. > Discuss any adjustment to assay data.	Multiple representatives of Piedmont Lithium, Inc. have inspected and verified the results. CSA has conducted multiple site visits. Dennis Arne (Principal Consultant) toured the site, facilities and reviewed core logging and sampling workflow as well as Leon McGarry (Senior Resource Geologist). Each provided comments on how to improve our methods and have been addressed. Verification core samples were collected by Leon McGarry. No holes were twinned. Ten-foot rods and core barrels were used, the core was converted from feet to meters. Li% was converted to Li_2O by multiplying Li% by 2.153. For by-products, accuracy of the normative mineralogy was monitored using Rietveld semi-quantitative mineralogy for 38 XRD analyses from pulp samples as well as 3 QEMSCAN analyses of composites used for metallurgical test work. Normative estimates for quartz, spodumene, albite and K-feldspar (microcline) have average relative accuracies less than +/- 2 % compared to the QEMSCAN composite data, with muscovite showing a positive relative bias of 11.6 % (i.e. 11.6 % more muscovite in the QEMSCAN results than the normative mineralogy predicts). The normative mineralogical estimates for quartz, spodumene, albite, K-feldspar and muscovite have average relative biases of 1 %, -3.7 %, 11.9 %, 2.9 % and 6.3 %, respectively, compared to the XRD results, excluding XRD mineral estimates of 2 % or less taken to be at or close to the method limit of detection, and following correction of the normative estimates for K-feldspar and muscovite using the XRD data. The QEMSCAN mineralogical data are taken to be more reliable than the XRD data given complications associated with the Rietveld analysis of minerals with a strong preferred orientation, such as muscovite. Measures taken to verify metallurgical sampling and test work are described in the September 4, 2018 report.
Location of data points	> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. > Specification of the grid system used. > Quality and adequacy of topographic control.	Drill collars were located with the Trimble Geo 7 which resulted in accuracies <1m. All coordinates were collected in State Plane and re-projected to Nad83 zone17 in which they are reported. Drill hole surveying was performed on each hole using a REFLEX EZ-Trac multi-shot instrument. Readings were taken approx. every 15 meters (50 feet) and recorded depth, azimuth, and inclination.
Data spacing and distribution	> Data spacing for reporting of Exploration Results. > Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. > Whether sample compositing has been applied.	For selected areas, the drill spacing is approximately 40 to 80 m along strike and down dip. This spacing is sufficient to establish continuity in geology and grade for this pegmatite system. The by product Mineral Resource estimates are based on the same geologic model that resulted in a maiden Mineral Resource estimate for lithium of **16.2 Mt @ 1.12% Li_2O** which was previously announced on June 14, 2018.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. > If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The pegmatite dikes targeted trend northeast and dip to the southeast, drillholes were designed, oriented to the northwest with inclinations ranging from -45 to -80 degrees, to best intersect the tabular pegmatite bodies as close to perpendicularly as possible.
Sample security	> The measures taken to ensure sample security.	Drill core samples were shipped directly from the core shack by the project geologist in sealed rice bags or similar containers using a reputable transport company with shipment tracking capability so that a chain of custody can be maintained. Each bag was sealed with a security strap with a unique security number. The containers were locked in a shed if they were stored overnight at any point during transit, including at the drill site prior to shipping. The laboratory confirmed the integrity of the rice bag seals upon receipt. Measures taken to ensure metallurgical sample security are described in the September 4, 2018 report.
Audits or reviews	> The results of any audits or reviews of sampling techniques and data.	CSA Global developed a "Standard Operating Procedures" manual in preparation for the drilling program. CSA global reviews all logging and assay data, as well as merges all data in to database that is held off site. CSA has conducted multiple site visits. Dennis Arne (Managing Director -Principal Consultant) toured the site and facilities as well as Leon McGarry (Senior Resource Geologist). Each provided comments on how to improve our methods and have been addressed. Verification core samples were collected by Leon McGarry. Reviews of metallurgical sampling techniques and data are discussed in the September 4, 2018 report.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. > The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Piedmont, through its 100% owned subsidiary, Piedmont Lithium, Inc., has entered into exclusive option agreements with local landowners, which upon exercise, allows the Company to purchase (or long term lease) approximately 1199 acres of surface property and the associated mineral rights from the local landowners. There are no known historical sites, wilderness or national parks located within the Project area and there are no known impediments to obtaining a licence to operate in this area.
Exploration done by other parties	> Acknowledgment and appraisal of exploration by other parties.	The Project is focused over an area that has been explored for lithium dating back to the 1950's where it was originally explored by Lithium Corporation of America which was subsequently acquired by FMC Corporation. Most recently, North Arrow explored the Project in 2009 and 2010. North Arrow conducted surface sampling, field mapping, a ground magnetic survey and two diamond drilling programs for a total of 19 holes. Piedmont Lithium, Inc. has obtained North Arrow's exploration data.
Geology	> Deposit type, geological setting and style of mineralisation.	Spodumene pegmatites, located near the litho tectonic boundary between the inner Piedmont and Kings Mountain belt. The mineralization is thought to be concurrent and cross-cutting dike swarms extending from the Cherryville granite, as the dikes progressed further from their sources, they became increasingly enriched in incompatible elements such as Li, tin (Sn). The dikes are considered to be unzoned with regards to lithium mineralization. The mineralogy and compositional averages of the modelled spodumene bearing pegmatites are illustrated above in Table 2.

Criteria	JORC Code explanation	Commentary
Drill hole Information	> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: > easting and northing of the drill hole collar > elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar > dip and azimuth of the hole > down hole length and interception depth > hole length. > If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	All relevant data for drill holes used in the mineral resource estimate have been reported in previous press releases No additional drill hole data is presented in this release. The by product Mineral Resource estimates are based on the same geologic model that resulted in a maiden Mineral Resource estimate for lithium of **16.2 Mt @ 1.12% Li₂O** which was previously announced on June 14, 2018.
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.	All relevant data for drill holes used in the mineral resource estimate have been reported in previous press releases. All intercepts reported in previous press releases are for down hole thickness not true thickness. Weighted averaging was used in preparing the intercepts previously reported. The drill intercepts were calculated by adding the weighted value (drill length x assay) for each sample across the entire pegmatite divided by the total drill thickness of the pegmatite. For each mineralized pegmatite, all assays were used in the composite calculations with no upper or lower cut-offs. Mineralized pegmatite is defined as spodumene bearing pegmatite. Intercepts were reported for entire pegmatites, taking into account lithological boundaries (i.e. sample to, and not across, major contacts), with additional high-grade sub intervals reported from the same pegmatite. In the case where thin wall rock intervals were included, a value of 0% Li₂O was inserted for the assay value, thus giving that individual sample a weighted value of 0% Li₂O. Cumulative thicknesses are reported for select drill holes. These cumulative thicknesses do not represent continuous mineralized intercepts. The cumulative thickness for a drill hole is calculated by adding the drill widths of two or more mineralized pegmatites encountered in the drill hole, all other intervals are omitted from the calculation. Li% was converted to Li₂O% by multiplying Li% by 2.153. Methods for aggregating metallurgical sample data are discussed in the September 4, 2018 report.
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 drill hole 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. 'down hole length, true width not known').	The by-product Mineral Resource estimates are based on the same geologic model that resulted in a maiden Mineral Resource estimate for lithium of **16.2 Mt @ 1.12% Li₂O** which was previously announced on June 14, 2018. No drill hole intercepts are reported in the release. For lithium, drill intercepts were reported as Li₂O% over the drill length, not true thickness. The pegmatites targeted strike northeast-southwest and dip moderately to the southeast. All holes were drilled to the northwest and with inclinations ranging between -45 and -80
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 drill hole collar locations and appropriate sectional views.	Appropriate diagrams are included in the main body of this report.
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.	All relevant data for drill holes used in the mineral resource estimate have been reported in previous press releases. Metallurgical test work data is provided to satisfy balanced reporting requirements in the September 4, 2018 report.

Criteria	JORC Code explanation	Commentary
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.*	Eleven thin section samples were collected and submitted to Vancouver Petrographic for preparation, mineral identification and description. The Petrographic report identifies the primary mineralogy as quartz, plagioclase (albite), clinopyroxene (spodumene), K-spar and white mica. Variable amounts of alteration were identified in the pegmatite samples. One sample of the host rock was submitted and identified as a metadiorite. A total of 41 samples have been analysed by Semi Quantitative XRD (ME-LR-MIN-MET-MN-DO3) by SGS Mineral Services. Three of the 41 samples were from the country rock The primary mineralogy of the pegmatite within the geologic model is identified as quartz, albite, spodumene, microcline and muscovite. See Table 2 above. Bulk Densities are collected from each of the Phase II drill holes (one host rock and one mineralized rock) using analyses code GPHY04V. Bulk Densities were collected in house using a triple beam scale using methodology from Dennis Arne for Phase III. Composite samples of ore intercepts from the Phase I and Phase II drilling have been submitted to North Carolina State Minerals Research Lab for bench scale spodumene concentrate testing. Results are pending.
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).* > *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	The Phase II drilling program consisted of 93 holes totaling 13,925m has been completed. After evaluation of all of the Phase II data Piedmont decided to conduct additional Phase III drilling to define the Company's maiden Mineral Resource estimate in 2018. Phase III drilling consisted of 124 drill holes totaling 21,360m. A Phase 4 program is currently being designed to convert inferred potions of the resource estimates to an indicated classification and drill test areas of exploration potential. This program is expected to begin in the coming months. Further metallurgical test work is described in the September 4, 2018 report.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	> *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.*	Geological and geotechnical observations are recorded digitally in Microsoft Excel logging templates using standardized logging codes developed for the project. Populated templates are imported into a central SQL database by a CSA Global database specialist via Datashed® import and validation functions to minimise risk of transcription errors. Likewise, sample data and analytical results are imported directly into the central database from the independent laboratory.
	> *Data validation procedures used.*	An extract of the central database was validated by the Competent Person for internal integrity via Micromine ® validation functions. This includes logical integrity checks of drill hole deviation rates, presence of data beyond the hole depth maximum, and overlapping from-to errors within interval data. Visual validation checks were also made for obviously spurious collar co-ordinates or downhole survey values.
Site visits	> *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	CSA Global Competent Person; Leon McGarry P.Geo, has undertaken multiple personal inspections of the property during 2017 and 2018 to review exploration sites, drill core and work practices. The site geology, sample collection, and logging data collection procedures were reviewed. A semi-random selection of drill collar locations was verified. In addition to spodumene, the presence of by-product minerals: quartz, feldspar (albite and k-spar) and muscovite mineralisation were verified by the inspection of drill core and outcrop. The outcome of the site visit was that data has been collected in a manner that supports reporting a Mineral Resource estimate in accordance with the JORC Code, and controls to the mineralisation are well-understood.
	> *If no site visits have been undertaken indicate why this is the case.*	Site visits have been conducted.
Geological interpretation	> *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	Geological models developed for the deposit are based on the lithological logging of visually distinct pegmatite spodumene bearing pegmatites within amphibolite host facies. Deposit geology is well understood based on surface pegmatite outcrops and extensive drilling at spacings sufficient to provide multiple points of observation for modelled geological features. Thicker units show good continuity between points of observation and allow a higher level of confidence for volume and mineralisation interpretations. Whereas, thinner units tend to be more discontinuous and interpretations have more uncertainty.
	> *Nature of the data used and of any assumptions made.*	Input data used for geological modelling are derived from qualitative interpretation of observed lithology and alteration features; semi-quantitative interpretation of mineral composition and the orientation of structural features; and quantitative determinations of the geochemical composition of samples returned from core drilling.

Criteria	JORC Code explanation	Commentary
	> The effect, if any, of alternative interpretations on Mineral Resource estimation.	Geological models developed for the deposit are underpinned by a good understanding of the deposit derived. Based on input drill hole data, including orientated core measurements, and surface mapping, pegmatite dikes were modelled as variably orientated sub-vertical to sub-horizontal features. Where drill data is sparse (i.e. at 80 m spacings) alternative interpretations, of the continuity of individual pegmatites between holes could be made. Alternate interpretations would adjust tonnage estimates locally but would not likely yield a more geologically reasonable result, or impact tonnage and grade estimates beyond an amount congruent with assigned confidence classifications.
	> The use of geology in guiding and controlling Mineral Resource estimation.	The model developed for mineralisation is guided by observed geological features and is principally controlled by the interpreted presence or absence of spodumene bearing pegmatite. Estimated deposit densities are controlled by interpreted weathering surfaces. Above the saprolite surface, and in outcrop, spodumene bearing pegmatites have variable mineral composition grade populations, sufficiently similar to fresh rock, allowing mineral composition grade estimates not to be controlled by interpreted weathering surfaces.
	> The factors affecting continuity both of grade and geology.	Geological continuity is controlled by the preference for fractionated pegmatitic fluids to follow preferential structural pathways and foliation within the amphibolite-facies host rocks. Grade continuity within the pegmatite is controlled by pegmatite thickness, degree of fluid fractionation and the intensity of spodumene alteration to muscovite and amount of weathering. Modelled continuity is impacted by post mineralisation intrusions and fault offsets in areas of limited extent
Dimensions	> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	Spodumene bearing pegmatite dikes on the property are assigned to three major corridors. Corridors extend over a strike length of up to 1.4 km and commonly have a set of thicker spodumene bearing pegmatite dikes of 10 m to 20 m true thickness at their core. These major dikes strike north-east and dip moderately to the south-east dipping. Dikes are curvi-planar in aspect, commonly becoming shallower with depth, Mineralized dikes, or a close spaced series of dikes, dike can be traced between drill hole intercepts and surface outcrops for over 1,000 meters. Dikes are intersected by drilling to a depth of 300 m down dip. Although individual units may pinch out, the deposit is open at depth. Shallow dipping, thin dikes of typically less than 3 m true thickness sit in the hanging wall of steeply dipping dikes and typically have a strike length and down dip extent of 100 to 200 m. The Mineral Resource has a maximum vertical depth of 200 m, beginning at the topography surface. On average the deposit extends to150 m below surface.

Predominantly, entire intervals of spodumene bearing pegmatite are selected for modelling. Occasionally interstitial waste of 1 to 2 m thickness may be included to facilitate modelling at a resolution appropriate for available data spacings. No minimum thickness criteria are used for modelling of dikes, however pegmatite must be present in at least two drill holes, and in at least two cross sections to ensure adequate control on model geometry. Generally, spodumene bearing pegmatite models are sufficient for use as MRE domains. |
| 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 method was chosen include a description of computer software and parameters used. | Samples coded by the modelled pegmatite domain they exploit were composited to a 1 m equal to the dominant raw drill hole sample interval. Domained samples were grouped by their dominant orientation, as controlled by the structures they exploit, into six groups for spatial analysis within the Supervisor™ software which was used to define semi-variogram models for mineral composition grades and confirm the suitability of search ellipsoids and parameters. A four search pass strategy was employed, with successive searches using more relaxed parameters for selection of input composite data and a larger search radius. The Piedmont Mineral Resource has been estimated using Inverse Distance Weighting into a block model created in Datamine StuidoRM®. In addition to Li_2O, regularised weight percent grades are modeled for eight minerals: spodumene, quartz, albite, k-spar, muscovite, anorthite, apatite and diopside, estimated independently in a univariate sense. The spatial variability of mineral grades is sufficiently similar to Li_2O grades to allow the use of the same search parameters utilized for the previously released Maiden Mineral Resource Study announced on June 14, 2018. The consistent estimation approach *was selected to ensure block compositional grade proportions honour those of input samples, and that block grade estimates for compositional minerals approximate 100%.* |
| | > The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. | This Mineral Resource estimate is a maiden resource. The resource estimate interpolation was checked using an Ordinary Kriged estimate and visually. |

Criteria	JORC Code explanation	Commentary
	> The assumptions made regarding recovery of by-products.	Bench-scale metallurgical test work undertaken at NCSU-MRL announced on September 4, 2018, recovered quartz, feldspar and mica concentrates as by-products to spodumene. These products were recovered at sufficient amounts and qualities to support the estimation of by-product mineral resources at the project in addition to spodumene hosted Li_2O.
	> Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Within the resource model, deleterious elements, such as iron are reported to be at acceptably to low levels. Accordingly, it is assumed that such elements will not impede the economic extraction of the modelled by-product minerals and no estimates for other elements were generated.
	> In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A rotated block model orientated at 35 degrees was generated. Given the variable orientation and the thickness the domains, a block size of 5 mE × 10 mN × 5mRL, sub-celled to a minimum resolution of 1.25 m^3, was selected to honour moderately dipping pegmatites in the across strike dimension, and the shallow dipping pegmatites in the vertical dimension. This compares to an average drill hole spacing of 40 m within the more densely informed areas of the deposit, that increases up to an 80 m spacing in less well-informed portions of the deposit. Blocks fit within all search ellipse volumes and are aligned to the dominant strike of pegmatites.
	> Any assumptions behind modelling of selective mining units.	Block dimensions are assumed to be appropriate for the mining selectivity achievable via open-pit mining method and likely bench heights. At the neighbouring Hallman-Beam mine operating benches of 9 m were mined.
	> Any assumptions about correlation between variables.	Both positive and negative correlations between modeled variables are present. Regularised weight percent grades are modeled independently in a univariate sense using search parameters that result in block model grade estimates that honour mineral proportions that result from normative calculations.
	> Description of how the geological interpretation was used to control the resource estimates.	The modelled pegmatite dikes host and constrain the mineralisation model. Each pegmatite domain was estimated independently with hard boundaries assumed for each domain. The dominant modelled orientation of pegmatite dike groups was used to inform search ellipse parameters so that in-situ grade trends are reflected in the block model.
	> Discussion of basis for using or not using grade cutting or capping.	Domained mineral grade data show normal distributions that do not contain extreme values and have coefficients of variation less than 1. On this basis, it is not necessary to cap mineral grades.
	> The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Block model estimates for the Piedmont resource were validated visually and statistically. Estimated block grades were compared visually in section against the corresponding input data values. Additionally, trend plots of input data and block estimates were compared for swaths generated in each of the three principal geometric orientations (northing, easting and elevation). Statistical validation included a comparison of composite means, and average block model grades, and a validation by Global Change of Support analysis.
Moisture	> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are reported on a dry basis.
Cut-off parameters	> The basis of the adopted cut-off grade(s) or quality parameters applied.	The economic extraction of by-product minerals is contingent on the economic extraction of Lithium mineral resources at the project. Accordingly, the By-Product Mineral Resource is reported using a 0.4% Li_2O cut-off which approximates cut-off grades used for comparable spodumene bearing pegmatite deposits exploited by open pit mining.
Mining factors or assumptions	> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The methods used to design and populate the Piedmont Mineral Resource block model were defined under the assumption that the deposit will be mined via open pit methods, since the depth, geometry and grade of pegmatites at the property make them amenable to exploitation by those methods. Inspection of drill cores and the proximity of open pit mines in similar rock formations indicate that ground conditions are likely suitable for such a mining method. The resource is constrained by a conceptual pit shell derived from a Whittle optimisation using estimated block value and mining parameters appropriate for determining reasonable prospects of economic extraction. These include a commodity price equivalent to approximately $750/t for spodumene concentrate (at 6% Li_2O), a mining cost of $1.85/t, a processing cost of $20/t, a maximum pit slope of 50° and appropriate recovery and dilution factors.

Criteria		JORC Code explanation	Commentary
Metallurgical factors or 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.*	The materials targeted for extraction comprise spodumene, quartz, feldspar and mica minerals for which metallurgical processing methods are well established. Based on metallurgical flotation test work reported by the company, which indicates: • spodumene concentrate grades exceed 6.0% Li_2O and are less than 1.0% Fe_2O_3; • quartz concentrate has characteristics comparable to marketable quartz products; • feldspar concentrate, comprised of albite and k-spar minerals, has characteristics comparable to marketable feldspar products; • muscovite mica concentrate has physical properties comparable to marketable muscovite products the Competent Person has assumed that metallurgical concerns will not pose any significant impediment to the economic processing and extraction of spodumene from mined pegmatite.
Environmental factors or assumptions	>	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a 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.*	No assumptions have been made regarding waste streams and disposal options, however the development of local pegmatite deposits within similar rock formations was not impeded by negative environmental impacts associated with their exploitation by open cut mining methods. It is reasonable to assume that in the vicinity project there is sufficient space available for the storage of waste products arising from mining.
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 representativeness of the samples.*	In situ bulk densities for the Piedmont Mineral Resource have been assigned based on representative averages developed from determinations made on drill core collected from throughout the property. The Competent Person considers the values chosen to be suitably representative
	>	*The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.*	Densities have been assigned on a lithological basis based on a total of 125 density determinations made by SGS Labs, Lakefield, Ontario on selected drill core from the deposit using the displacement method. A further 97 determinations were made by Piedmont geologists in the field also using the displacement method allowing compatibility with, and use alongside, the SGS results. Determinations made by Piedmont were predominately collected from weathered rock. Void spaces were adequately accounted for by coating samples in cling film.
	>	*Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Simple averages were generated for fresh pegmatite (2.71 t/m³), pegmatite saprolite (2.39 t/m³), overburden waste rock (1.26 t/m³, saprolite waste rock (1.38 t/m³) and amphibolite country rock (2.74 t/m³)
Classification	>	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The Mineral Resource has been classified as Indicated and Inferred on a qualitative basis; taking into consideration numerous factors such as: the validity and robustness of input data and the estimator's judgment with respect to the proximity of resource blocks to sample locations and confidence with respect to the geological continuity of the pegmatite interpretations and grade estimates. All blocks captured in pegmatite dike interpretation wireframes below the topography surface are classified as Inferred. Indicated classification boundaries were generated that define a region of blocks that, overall, meet the following criteria: Within major pegmatite dikes that have an along strike and down dip continuity greater than 200 m and 50 m respectively and that have a true thickness greater than 2.5 m; and that are informed by at least two drill holes and eight samples within a range of approximately 20 m to the nearest drill hole in the along strike or strike and downdip directions. No Measured category resources are estimated.
	>	*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).*	The classification reflects areas of lower and higher geological confidence in mineralised lithological domain continuity based on the intersecting drill sample data numbers, spacing and orientation. Overall mineralisation trends are reasonably consistent within the various lithology types over numerous drill sections.
	>	*Whether the result appropriately reflects the Competent Person's view of the*	The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit.

Criteria		JORC Code explanation	Commentary
		deposit	
Audits or reviews	>	*The results of any audits or reviews of Mineral Resource estimates.*	Internal audits were completed by CSA Global which verified the technical inputs, methodology, parameters and results of the estimate. The current model has not been audited by an independent third party.
Discussion of relative accuracy/ confidence	>	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The Mineral Resource accuracy is communicated through the classification assigned to the deposit. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 2 of this Table.
	>	*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.*	The Mineral Resource statement relates to a global estimate of in-situ mineralised rock tonnes, estimated quartz by-product tonnage, estimated feldspar by-product tonnage comprising albite and k-spar minerals, and estimated muscovite mica by-product tonnage.
	>	*These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	There is no recorded production data for the property.