ASX ANNOUNCEMENT | 9 October 2019

RESOURCE AND RESERVE ESTIMATE UPDATE FOLLOWING FIRST YEAR OF MINING OPERATIONS

- *Revised Mineral Resource Estimate of **45.7 million tonnes at 1.06% Li_2O and 483,000 tonnes of contained Li_2O**, including **7.4 million tonnes** in the Measured category*
- *Revised Ore Reserve Estimate of **37.6 million tonnes at 1.08% Li_2O and 407,000 tonnes of contained Li_2O**, including **7.2 million tonnes** in the Proved category*
- *Revised estimates reflect:*
  - *Improved mining methods which have reduced dilution and eliminated marginal ore at resource boundaries*
  - *Ore depletion due to 12 months of successful mining*
  - *Reduction in cut-off grade*

Altura Mining Limited (ASX: AJM) has revised the Mineral Resource and Ore Reserve Estimate for its 100%-owned flagship Altura Lithium Project at Pilgangoora in WA's Pilbara region. Improvements in mining methods implemented during the first 12 months of operations have delivered lower rates of ore dilution than previously modelled and this is represented in the revised estimate of lower tonnes at a higher lithium grade.

Altura Managing Director James Brown said the experience gained through the first 12 months of mining had led to significant refinements to the Resource and Reserve estimates.

"Following 12 months of mining and model reconciliations we are increasingly confident of the limits of the ore bodies and the characteristics of the ore presented to the process plant. The Altura site team and our mining contractors NRW Holdings have worked together to reduce the mining dilution and increase the feed grade of ore to the plant. It has been a joint effort and credit goes to those involved," Mr Brown said.

"We remain confident that on-going infill drilling and broader exploration efforts will enable us to continue to grow our Resources and Reserves steadily in the years to come."

"We are undertaking exploration programs to increase inventory annually starting with further delineation of targets closest to the current mining operation and then moving to the wider exploration portfolio."

The Altura Lithium Project has an updated Mineral Resource Estimate of 45.7 **million tonnes at** 1.06% Li_2O and 483,000 **tonnes of contained** Li_2O. This estimate includes 7.4 **million tonnes** in the Measured category, 34.2 **million tonnes** in the Indicated category and 4.1 **million tonnes** in the Inferred category.

The Ore Reserve Estimate of 37.6 **million tonnes at** 1.08% Li_2O and 407,000 **tonnes of contained** Li_2O. It includes 7.2 **million tonnes** in the Proved category and 30.5 **million tonnes** in the Probable category.

The Mineral Resource and Ore Reserve Estimation work was completed by Cube Consulting Pty Ltd, Perth, Western Australia.

JORC Mineral Resource Estimate

Cube Consulting Pty Ltd (Cube), in Perth, Western Australia was commissioned by Altura to complete a revised geological wireframe model and Mineral Resource Estimation update based upon exploration and mining data compiled within the Altura Lithium Project up to and including 30 June 2019.

This Mineral Resource Estimate is in line with Industry best practice standards and robust geostatistics and reported according to the guidelines set by the JORC Code, 2012 Edition. Altura had previously released a Mineral Resource Estimate completed by Cube (see ASX Release on 28 May 2018).

The latest Mineral Resource Estimate is based on a cut-off grade of 0.30% Li_2O as set out in Table 1. The Measured category is inclusive of 0.5Mt and the Indicated category is inclusive of 0.2Mt of ROM stockpile ore.

Table 1

Mineral Resource Estimate (0.30% Li_2O Cut-off Grade) – 30 June 2019

JORC Category	Cut-off Li_2O%	Tonnes (Mt)	Li_2O%	Fe_2O_3%	Li_2O Tonnes
Measured	0.30	7.4	1.23	1.38	91,000
Indicated	0.30	34.2	1.03	1.29	353,000
Measured & Indicated	0.30	41.6	1.07	1.31	444,000
Inferred	0.30	4.1	0.95	1.41	39,000
Total	0.30	45.7	1.06	1.32	483,000

Table 2

Mineral Resource Estimate Comparison – June 2019 and May 2018

	June 2019 (0.30 Li_2O% cut-off grade)			May 2018 (0.40 Li_2O% cut-off grade)		
JORC Category	Tonnes (Mt)	Li_2O%	Li_2O Tonnes	Tonnes (Mt)	Li_2O%	Li_2O Tonnes
Measured	7.4	1.23	91,000	8.7	1.12	97,000
Indicated	34.2	1.03	353,000	38.0	1.00	380,000
Measured & Indicated	41.6	1.07	444,000	46.7	1.02	477,000
Inferred	4.1	0.95	39,000	3.8	0.92	35,000
Total	45.7	1.06	483,000	50.5	1.01	512,000

The Competent Person (CP) Mr Stephen Barber has made numerous visits to the Altura Lithium Project site since July 2016.

The principal sources of information used by Cube in this Mineral Resource Estimate were provided by Altura. Through discussions with the Company's personnel, Cube has tried, by making all reasonable enquiries, to confirm the authenticity, accuracy, validity and completeness of the technical data. The principal source of information was provided by Mr Stephen Barber, Exploration Manager at Altura.

The data included general project description documentation, exploration drilling database (including collar survey, assay plus geological logging), topographic and mapping information including faults mapped in the pit area, ore block mining plans, bulk density data, metallurgical test work results and previous pegmatite interpretation model wireframes.

Confidence in the geological interpretation is high based upon a sound interpretation of the exploration mapping and drilling coupled with the knowledge gained through recent mining activities. The distribution of Li_2O and other attributes estimated within the pegmatite bodies is complex and the mineralisation tends to be heterogeneous.

Cube believes that the geological continuity and volume controls are well established based upon exploration drilling. The data used to establish the updated geological wireframe model consisted of down hole geological logging of RC drill chips, surveyed ore block designs and fault surfaces.

Mineralisation is contained within 15 individual pegmatite intrusive lodes hosted in mafic (basalt) and ultramafic (peridotite) units, which occur as a set of stacked lodes in a north-northeast (NNE) trending zone, generally dipping 25-45°ESE and occasionally up to 55-75°ESE. Twelve mapped and interpreted fault surfaces have been included in the geological model.

There are a few sub-parallel weakly mineralised or barren pegmatites immediately to the west of the deposit and there is a zone of granite and schist units located about 1km from the main deposit area; these external areas were intersected in sterilisation drill holes completed in 2016.

Altura has an internal Mineral Resource and Ore Reserve Steering Committee that meets quarterly to review the geological model versus mining actuals and ore reconciliation.

As of 30 June 2019, a total of 1,517,284 tonnes at 1.16% Li_2O (17,600 tonnes Li_2O) was mined for the past 12 months, which was reconciled against the model estimate of 1,705,513 tonnes at 1.11% Li_2O (18,931 tonnes Li_2O). Since the commencement of mining 1,770,080 tonnes at 1.13% Li_2O has been mined, which reconciles against the model estimate of 1,970,897 tonnes at 1.10% Li_2O.

Mining methods used on site have incurred less dilution then was previously modelled and expected. The revised June 2019 model uses smaller block estimates (5mEW x 5mNS x 3mRL) to better simulate the 'clean' mining method used on site. Tighter geological modelling was used by Cube based upon pit observations reflects the mining actuals for the past 12 months. The increased recovered Li_2O grade allowed the cut-off grade to be reduced in order to meet the feed requirements of the processing plant.

The revised resource modelling, together with depletion of 17,600 tonnes Li_2O through 12 months of mining, as well as the adjustment of the cut-off grade to 0.30% Li_2O, led to a net 2% reduction in overall Li_2O tonnage within the estimate.

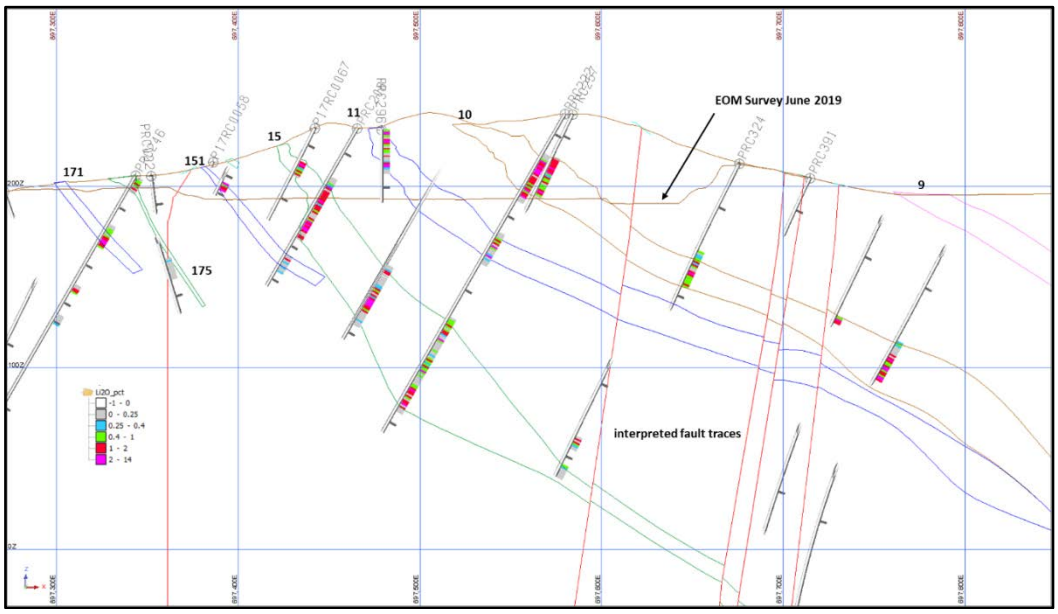
Figure 1 shows mining activities at the Altura Lithium Project during June 2019. See Figure 2 to view a cross section of the mineralised pegmatites and interpreted fault traces beneath the foreground area shown in Figure 1.

Figure 1

Mining Activities at the Altura Lithium Project – June 2019

Figure 2

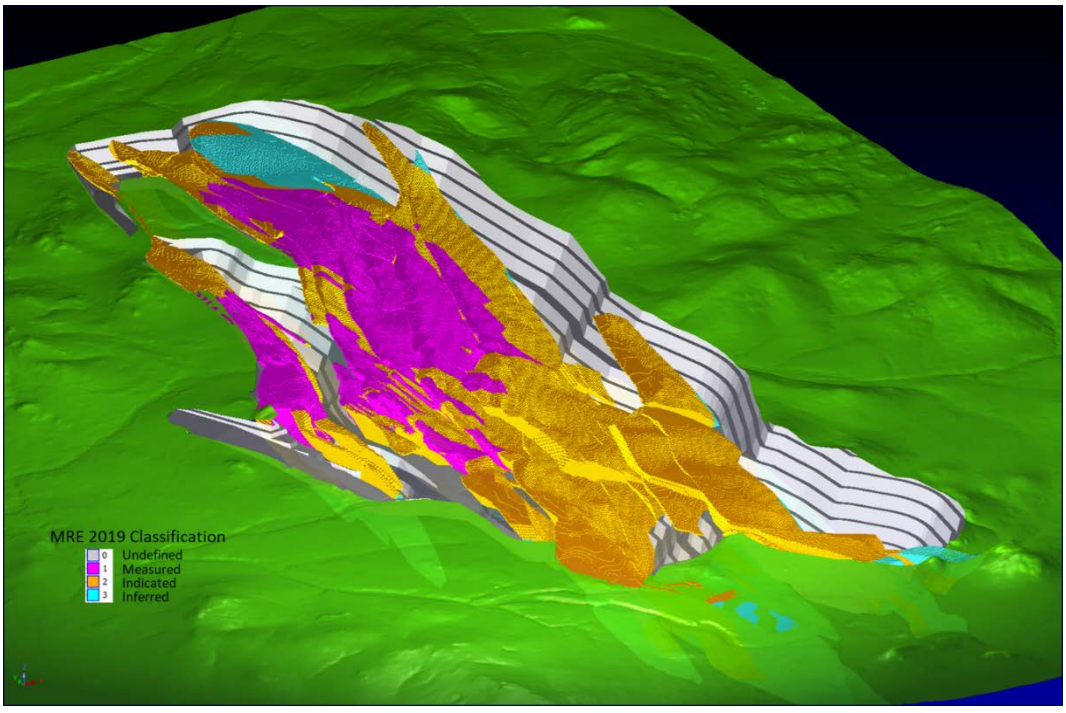
Cross Section 7668470mN +/-10m (numbered pegmatite lode outlines and interpreted fault traces shown)



The reported Mineral Resource Estimate has been limited at depth using a "reasonable expectations" optimisation shell generated using 1.5 x the base price ($US690/t Spodumene Concentrate [6% Li_2O] gross price). This optimisation imposes a depth limit on the estimated Mineral Resource of -80mRL which is approximately 360m below the topographical surface. This pit shell has been used as the limiting constraint for blocks with reasonable expectations of viable open pit extraction at some time in the future. Figure 3 below shows the extent of the Measured, Indicated and the Inferred Mineral Resource blocks within the pit design.

Figure 3

Oblique View (looking northeast) Block Model by Classification (June 2019) inside Pit Design



JORC Ore Reserve Estimate

Cube Consulting Pty Ltd (Cube), in Perth, Western Australia was also commissioned by Altura to complete an Ore Reserve estimation update on its 100% owned Altura Lithium Project.

The latest Ore Reserve Estimate for Altura's 100% owned flagship Altura Lithium Project totals **37.6 Mt at 1.08% Li_2O** and is classified as a Proved and Probable Ore Reserve estimate (see Table 3). The Proved category is inclusive of 0.5 Mt and the Probable category is inclusive of 0.2 Mt of ROM stockpiles.

When considering the net effect of the tonnage and grade against the Ore Reserve estimate – with a commencement of 432,000 tonnes Li_2O, less mining depletion of 17,600 tonnes Li_2O equates to 414,400 tonnes Li_2O delivering a 2% net decrease in overall Li_2O tonnage within the estimate.

Table 3

Ore Reserve Estimate (0.30% Li_2O Cut-off Grade) – 30 June 2019

JORC Category	Cut-off Li_2O%	Tonnes (Mt)	Li_2O%	Fe_2O_3%	Li_2O Tonnes
Proved	0.30%	7.2	1.22	1.40	87,000
Probable	0.30%	30.5	1.05	1.29	320,000
Total	0.30%	37.6	1.08	1.31	407,000

This Ore Reserve Estimate is in line with Industry best practice standards and reported according to the guidelines set by the JORC Code, 2012 Edition. Altura had previously released an Ore Reserve Estimate completed by Cube Consulting Ltd (see ASX Release on 28 May 2018). Table 4 shows a comparison between the June 2019 and May 2018 Ore Reserve Estimates.

Table 4

Ore Reserve Estimate Comparison – June 2019 and May 2018

	June 2019 (0.30 Li_2O% cut-off grade)			May 2018 (0.43 Li_2O% cut-off grade)		
JORC Category	Tonnes (Mt)	Li_2O%	Li_2O Tonnes	Tonnes (Mt)	Li_2O%	Li_2O Tonnes
Proved	7.2	1.22	87,000	8.3	1.14	94,000
Probable	30.5	1.05	320,000	32.8	1.03	338,000
Total	37.6	1.08	407,000	41.1	1.05	432,000

A site visit was attended by the Competent Person (CP) Mr Quinton de Klerk from Cube in January 2017. During this site visit the CP met with key operational personnel, view the proposed infrastructure sites, the pit location relative to the natural terrain as well as the mining camp and surrounding general infrastructure and regional setting. The CP reacquainted himself with the project and key personnel during a series of meetings in June 2019.

The resource model used as the basis for this Ore Reserves update was also compiled by Cube, based on the latest available drilling and mining information. The model was estimated by Localised Uniform

Conditioning (LUC) methods with an assumption of mining selectivity dimensions of 5mEW x 5mNS x 3mRL.

The Mineral Resources reported are inclusive of the Ore Reserves reported here. The Ore Reserves are reported at a 0.30% Li_2O cut-off, which is the same as the 0.30% Li_2O cut-off reported in the Mineral Resources. This cut-off is above the theoretical economic cut-off grade and has been selected to achieve a target feed grade.

Cube carried out open pit optimisation on the Measured and Indicated Resource material. See Figure 4 for a cross section view (7668030N) within the proposed open pit. Slope design criteria and processing recoveries were applied in the pit optimisation process together with mining, processing, transport and sales cost estimates, and revenue projections to form the basis for pit designs and subsequent mining and processing schedules.

Tenement Constraints

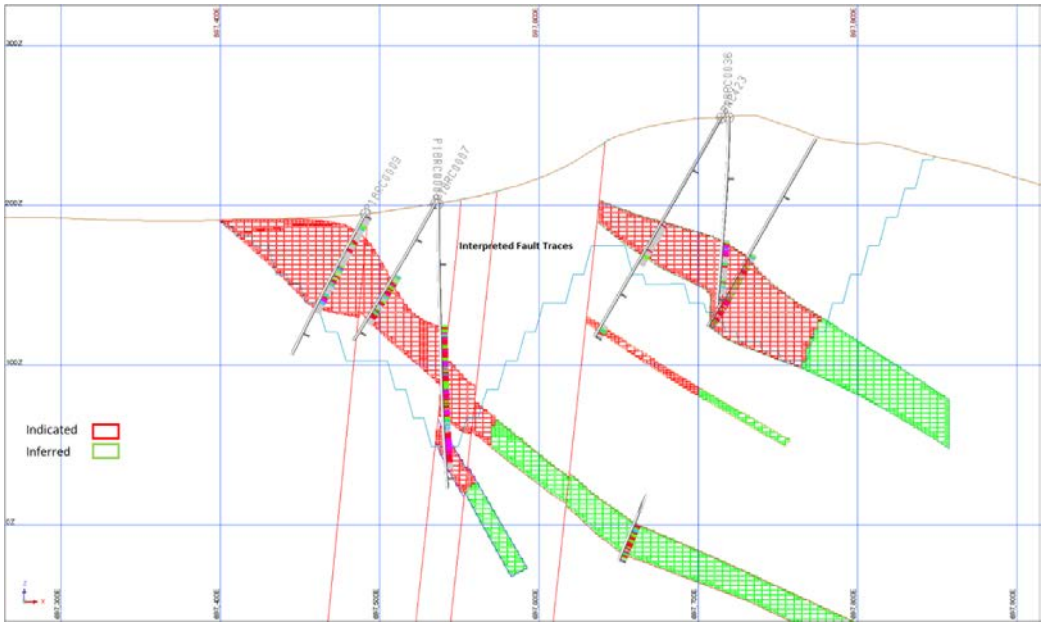
As with the previous Ore Reserve Estimate (see ASX Release on 28 May 2018), it is assumed in this latest Ore Reserve that mining may take place on the adjacent Pilbara Minerals tenement to the east to facilitate accessing of deeper Ore Reserves on the Altura tenement. Only the ore that is contained within the Altura tenements has been included in the Ore Reserve Estimate.

There is a reasonable expectation that mining across the tenement boundary will be able to take place. This assumption is supported by ongoing discussions between the two parties which as yet have not been finalised. The ore that would be subject to any potential mining is outside of Altura's 5 Year Mine Plan and if required further deferment is possible with variations to the Life of Mine scheduling sequence.

The mining on the Pilbara Minerals side of the tenement boundary has been dealt with on a conservative basis in the estimation of these Ore Reserves, in that all mining costs are assumed to be paid by Altura. Furthermore, no economic value has been allocated to potential Ore Reserves on the Pilbara Minerals tenement, which are therefore also excluded from the reporting of the Ore Reserves.

Figure 4

Cross Section (7668030N) View within the Proposed Pit



ASX Additional Information – Material Assumptions

Mineral Resource Estimate (Summary Information Required by Listing Rule 5.8.1)

Geology and Geological Interpretation

Altura's Pilgangoora Lithium Project occurs at the southern end of a zone of pegmatite intrusive dykes within the synformal Pilgangoora greenstone belt. The pegmatites are hosted within amphibolites which have a mafic and ultramafic volcanic origin.

A total of 15 mineralised pegmatites have been identified and these occur as a set of stacked lodes generally striking 010-030°NNE and dipping 25-45°ESE and occasionally up to 55-75°ESE. The dykes generally range from 8-14m thick however there are areas where the pegmatites form lenticular pods and are much thicker (up to 64m).

Based upon the completed drilling, the pegmatites appear to be confined to a NNE trending corridor which is approximately 1600 metres long (north to south), 550 metres wide (east to west) and 450m deep. Mineralisation is present at surface for some lodes with most mineralised lodes starting from within 10m of surface.

The mineralised pegmatites are located approximately 1-3km east of a granite contact. There are several barren pegmatites located in the zone between the granite contact and the mineralised pegmatite zone. The granite contact zone and barren pegmatites were identified via sterilisation drilling carried out in 2016 for the proposed infrastructure and waste dump areas.

The reason for this structural and or geological control within the deposit area is not fully understood however the distance from the granite contact is such that mineralisation in the pegmatite is confined to lithium and rubidium (almost wholly reporting in spodumene and muscovite respectively) with relatively low values for tin and tantalum or other associated minerals.

Sampling and Sub-sampling Techniques

The Pilgangoora deposit was sampled by collecting outcrop rock chips; plus samples were collected from reverse circulation or RC (chip) and diamond drilling or DD (core). Drilling for assay samples was undertaken on a regular spaced grid (over average 40m x 40m). All potential ore intervals and their contacts into barren wall rock were sampled.

RC drill hole samples were collected in one metre (1m) intervals from the beginning to end of each hole. Each 1m sample was split directly using a rig-mounted riffle splitter and then collected into a uniquely numbered calico bag. The remaining material for each 1m interval was collected directly off the cyclone into a numbered plastic bag and kept near the drill site for geological logging.

DD used a HQ diameter triple tube core barrel; the core was removed from the tube and then transferred to 4x1m HQ core trays. The core was marked up and logged in the core trays. Sample lengths were determined by the geologist, based upon the nature and location of the mineralisation logged in the core. Half core sample cut from mineralised zones was sent for assay analysis.

Mineralisation was initially determined visually and confirmed by geological logging and geochemical assaying.

RC samples were normally dry. If water was present, it was expelled (if possible) from the hole before sample was collected. RC samples for 1m intervals were split using a riffle splitter mounted on each RC rig to provide a 1/8th sample. The split samples were stored in numbered calico sample bags. The sample numbers used in each drill hole were recorded by the Rig Geologist.

Diamond core was ½ or ¼ cut (for check sampling and metallurgical purposes) with sampling from the same side where possible.

Sample preparation for both RC chips and DD core in 2010-13 and 2016, required that the whole sample was crushed to 2mm, then rotary divided and a 500g (approximate) sample was pulverised to -75 microns. A 0.2g split was then sent directly to a microwave-assisted dissolution. HF acid MAD's are performed in sealed vessels at temperatures up to 200°C and pressures up to 20 Bar. Digests were controlled with respect to microwave power, vessel temperature and vessel pressure to achieve reproducible digestion conditions across a wide range of sample materials.

Samples collected in 2017 were sorted, weighed, dried and pulverised to nominal 90% <75um using Labtech Essa LM5 pulveriser prior to analyses work, and in 2018 samples were sorted, weighed, dried and pulverised using a routine 5-minute grind time to deliver Intertek's required quality specification of P85 75um.

Random duplicate samples for analyses were taken from most of the pegmatite intersections. The range between the original and duplicate sample data was on average 10-15%. Laboratory also inserted its own check samples in each assay batch.

The drill sample sizes were considered appropriate to represent the spodumene mineralisation, based on the average size of spodumene crystals (up to 50cm) and the thickness and overall consistency of mineralisation within the pegmatite hosts.

Drilling Techniques and Hole Spacing

Drilling from 2010-13, included both RC (chip) and DD (core). This work was undertaken using Altura's PRD2000 multipurpose rig rated at 1120 cfm @ 350psi. The RC drilling used a 5.2" (132mm) face sampling hammer, the diamond drilling used HQ (63.5mm internal) coring. The RC holes were sampled from the surface. DD holes were pre-collared to 3m and then coring commenced. No core orientation was undertaken.

A staged series of drilling programs commencing in August 2010 and extending through to March 2013 covered most of the pegmatite field with 290 drill holes. There were 282 RC holes (including four water bore holes) totalling 24,649 metres and eight diamond core drill holes totalling 1,387.9 metres completed during that period.

In April 2016, DD was carried out by DDH1, who supplied a Sandvik UDR 1200 (PQ3 size core; 85mm core diameter) truck mounted rig. The purpose of this DD work was to 'twin' previously drilled RC holes and validate the thickness of the intersected pegmatites. No core orientation was under taken and this drilling work comprised of 9 holes, totalling 854 metres.

From June until October 2016, RC drilling was undertaken with four RC drill rigs. Strike Drilling supplied a truck mounted rig SD02/ KWL700 (143mm hammer bit). Mt Magnet Drilling (MMD) supplied a RC450 Hydco track mounted rig (146mm hammer bit); MMD DR24/UDR259 track mounted rig (140mm hammer bit); and MMD MP1300 multipurpose truck mounted rig (146mm hammer bit). When required all the RC

rigs utilised auxiliary compressors for additional air pressure. A total of 246 RC holes were completed from June-October 2016, totalling 41,070m.

A total of 139 RC holes (25,233m) were drilled in the main deposit area and 107 RC sterilisation holes (15,837m) were completed within the areas designated for infrastructure, waste dumps, tailings storage facility and other associated surface installations.

May until July 2017, RC drilling was undertaken using two RC drill rigs. MMD supplied a RC450 Hydco track mounted rig (146mm hammer bit); and MMD MP1300 multipurpose truck mounted rig (146mm hammer bit). When required the RC rigs utilised auxiliary compressors for additional air pressure. A total of 189 RC holes (8,369m) were completed.

In February to March 2018, RC drilling was undertaken using a RC drill rig. MMD supplied a RC450 Hydco track mounted rig (146mm hammer bit). When required the RC rig utilised an auxiliary booster compressor for additional air pressure. A total of 47 RC holes (4,883m) were completed.

Typically holes, including those drilled in 2018 have been drilled on a nominal 40m x 40m grid pattern covering the strike extent of the Pilgangoora pegmatite zone. In 2017, RC holes were drilled on an infill 20m x 20m grid pattern in the areas planned to be mined during the first three years of production. These grid patterns are considered an adequate spacing for establishing geological and grade continuity both along strike and down dip.

From outcrop mapping and costean exposures, the pegmatite dykes exhibit consistency over distances exceeding 40m and data acquired from drill holes at this spacing is considered adequate for the definition of the Measured, Indicated and Inferred categories of the JORC code. No sample compositing has been applied within the resource area.

During the period from 2010-18, a total of 17 DD holes (2,241.9m) and 764 RC holes (78,971m) have been completed.

Sample Analysis Method

Initial samples up until June 2011 were dispatched to Ultra Trace Laboratories in Perth. All subsequent sample submissions up to October 2016 were sent to LabWest in Perth. Both laboratories are NATA (National Association of Testing Authorities, Australia) certified.

Li (ppm), Al_2O_3%, CaO%, Fe_2O_3%, K_2O%, MgO%, MnO%, Na_2O%, P_2O_5%, SO_3% and TiO_2% were assayed using microwave assisted HF acid digest with an ICP-OES finish, while Be (ppm), Cs (ppm), Nb (ppm), Rb (ppm), Sn (ppm), Ta (ppm), Th (ppm) U (ppm) and W (ppm) were digested with an ICP-MS finish. This technique is considered an effective for whole rock determination.

The Certified Reference Materials (CRM) rate used by LabWest was 2 in every 24 samples and 7 CRM's (2 lithium ores, 1 rock, 1 soil, 3 pegmatites) were used. Internal lab splits (post-crushing) were done on 1 in 40 samples and pulp repeats were inserted at the rate of 1 in 24 samples. LabWest randomly inserted in-house standards to check their internal QC sampling. Random, blind re-submission of pulps from LabWest to an external lab (Ultra Trace) for check assaying was carried out.

In 2017, the samples were submitted to SGS Australia's Laboratory in Perth. This lab is NATA certified encompassing ISO17025. Two analyses methods were used by SGS. The first method used by SGS was the determination of elements by Sodium Peroxide Fusion with ICP finish. Each sample was fused with sodium peroxide in a zirconium crucible and the melt was leached with hydrochloric acid and made to volume. The solution from the digest was presented to an ICP-OES for the quantification of Li (ppm) and Fe (ppm).

The second method used by SGS was the determination of Elements by Borate Fusion with XRF finish. Each sample was fused in a platinum crucible using lithium metaborate / tetraborate flux and the resultant glass bead was irradiated with X-Rays and the elements of interest were quantified. These elements were Al (ppm), Ca (ppm), Fe (ppm), K (ppm), Mn (ppm), Na (ppm), P (ppm), Si (ppm) and Ti (ppm).

SGS used the following QC protocol: Blanks 1:50 (Reagent blank); Standards (CRM) 2:50; Repeats 1:50 (re-weigh from original assay packet); Duplicates 5% (sub-sampled at preparation stage from fine reject and analysed together at end of batch). SGS used 9 CRM's.

Field duplicates were randomly inserted by the drilling offsider when mineralised pegmatites were intersected. The position of each duplicate sample was logged by the Rig Geologist. The general practice was to include a duplicate sample in every intersected pegmatite. These duplicates were anomalous to laboratory personnel. During the 2017 drill program, the Rig Geologist also added a blank (industrial sand) and CRM standard in addition to the duplicate samples collected in the field.

In August 2017, Altura requested an external laboratory check of samples pulps stored by SGS and a set of CRM standards. This work was carried out by Intertek Genalysis which is ISO17025 accredited. The analyses methods used by Intertek were identical to those used by SGS.

The quality control protocols employed by Intertek made use of control blanks (reagent blanks), checks (pulp duplicates) and reference materials which may be certified reference materials. Normally blanks were employed in at least 1% of the samples and checks and reference materials about 4% of the samples. Intertek used 7 CRM's.

The QC samples (field duplicates) plus lab splits and lab internal standards have indicated the assaying shows acceptable levels of accuracy and precision.

In 2018, the samples were submitted to Intertek Genalysis Laboratory in Perth which is ISO17025 accredited. The method used by Intertek was the determination of elements by Sodium Peroxide Fusion with ICP finish. Each sample was fused with sodium peroxide in a zirconium crucible and the melt was leached with hydrochloric acid and made to volume.

The solution from the digest was presented to an ICP-OES for the quantification of Al (%), Ca (%), Fe (%), K (%), Li (%), Mn (%), Si (%) and Ti (%); Rb (%) was reported using a MS finish. The quality control protocols employed by Intertek made use of control blanks (reagent blanks), checks (pulp duplicates) and reference materials which may be certified reference materials. Normally blanks were employed in at least 1% of the samples and checks and reference materials about 4% of the samples. Intertek used 7 CRM's.

No geophysical tools, spectrometers or hand-held XRF instruments were used in determining any of the assay data included in this resource.

Mineral Tenement and Land Tenure Status

The deposit lies within the M45/1230 and M45/1231 mining tenements which were granted on 26 August 2016. These are owned 100% by Altura Lithium Operations Pty Ltd. All tenements covering the deposit are in good standing and there is no known impediment to retaining a license to operate.

Estimation Methodology

This Mineral Resource Estimate (MRE) is a result of a review of mining operations for the past twelve months. A revised interpretation closely based on previous work has been undertaken by Cube to include the all the recent information.

Cube has used 3DM wireframes to constrain the pegmatite lodes. The 3DM wireframes have been generated using LeapFrog® implicit modelling and these wireframes have been used to select the data to be used and to constrain the estimated block volumes. The interpretation of pegmatite volumes was based on the geological logging only and all grade data within each of the pegmatite geological units has been used in the estimation. Estimation of Li_2O%, Fe_2O_3%, Al_2O_3%, MnO%, Si_2O%, K_2O%, CaO%, MgO%, Cs ppm, Ta ppm, Be ppm and Rb ppm has been undertaken.

Drill intervals falling within the wire framed pegmatite lodes were coded in the database. Composites of each grade value were then generated using the Surpac "best-fit" method. Based on sample size, local grade variability, selectivity assumption (5mEW x 5mNS x 3mRL) and selected estimation methodology, Cube have chosen to use 1m down hole composites for this estimation. This composite size allows maximum resolution for modelling of local grade variability while still allowing for robust characterisation of the spatial structure (i.e. the variograms).

Due to the nature of the mineralisation no estimation domains were found to contain extreme outlier grade values. However, some minor grade capping was implemented for certain domains to mitigate risk – this is not considered to be material to the estimate.

Based on the statistical characteristics of the key grade items and the proposed use of the resulting block model Cube decided to undertake grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method, which is capable of providing small block estimates (5mEW x 5mNS x 3mRL) from relatively wide spaced data.

The LUC estimates for each grade item estimated were implemented using the Isatis® software package before being transferred into a Surpac™ block model.

No consideration has been made with respect to by-products.

Statistical analysis shows that the eight variables being estimated are not sufficiently well correlated for the use of multivariate estimation methods and so each variable was estimated independently.

Block size for grade estimation was chosen in consultation with Altura and with due regard to data spacing, ore body geometry, and practical mining considerations. An SMU block size of 5mEW x 5mNS x 3mRL was chosen (no rotation) for use in the localisation process. This SMU block size conforms to the proposed mining flitch height and is elongated in the same general direction (north-south axis) as the trend of the lodes.

The data spacing would be considered too wide for such a small block size if conventional linear estimation methods were used. However, Cube has used the LUC method, which is intended specifically for estimating the grade distribution of smaller blocks using relatively wide spaced data points.

The LUC models were validated by comparing global declustered composite data to the estimates per estimation domain, on a semi-local basis by the use of swath plots and finally by visual cross-sectional and 3D observations of the modelled block grades against the informing drill data.

Resource Classification

The geological model and continuity of the pegmatite lodes is currently well understood due to the surface mapping, drill hole testing and mining operations. The stability of the interpretation with the introduction of closely spaced infill drilling supports a moderate to high confidence in the estimated tonnage.

Grade continuity is less well understood and variability within each pegmatite lode and between individual pegmatite lodes occurs. Confidence in the estimated grade continuity is a direct function of information density and is characterised by geostatistical modelling parameters. No grade control data was used during the estimation.

The geostatistical characteristics of the mineralisation (Li_2O grade distribution) can be summarised as moderately low relative nugget (15-35%) and maximum ranges of between 45 and 95m. Equal proportions of the variance are distributed between the first and second structures of the variogram models.

The deposit is drilled tested at a variable spacing ranging from 20m x 20m grid at near surface central portions to 40m x 40m grid at the peripheral and deeper parts.

Previous exploration drilling demonstrates that at the mining scale, continuity variations may be seen where the drilling has not resolved the lode complexity. However, this variation in interpretation has been shown to not materially impact on the mineralised and estimated volume.

The MRE has been classified as Measured, Indicated or Inferred based on geological continuity, assay data representivity and a set of summary estimation quality parameters including the average distance from informing composite data and the theoretical slope of regression (true to estimated blocks) parameter.

Estimated pegmatite with an average distance from composite data of 30m or less has been classified as Measured. This results in the Measured blocks having an average distance of less than 20m to composite data globally, and an average global slope of regression of 0.5. Estimated pegmatite with an average distance from composite data of 50m or less has been classified as Indicated. This results in the Indicated blocks having an average distance of 30m to composite data globally, and an average global slope of regression of 0.3. Estimated pegmatite classified as Inferred has an average distance to composite data of 70m and a slope of regression of 0.06.

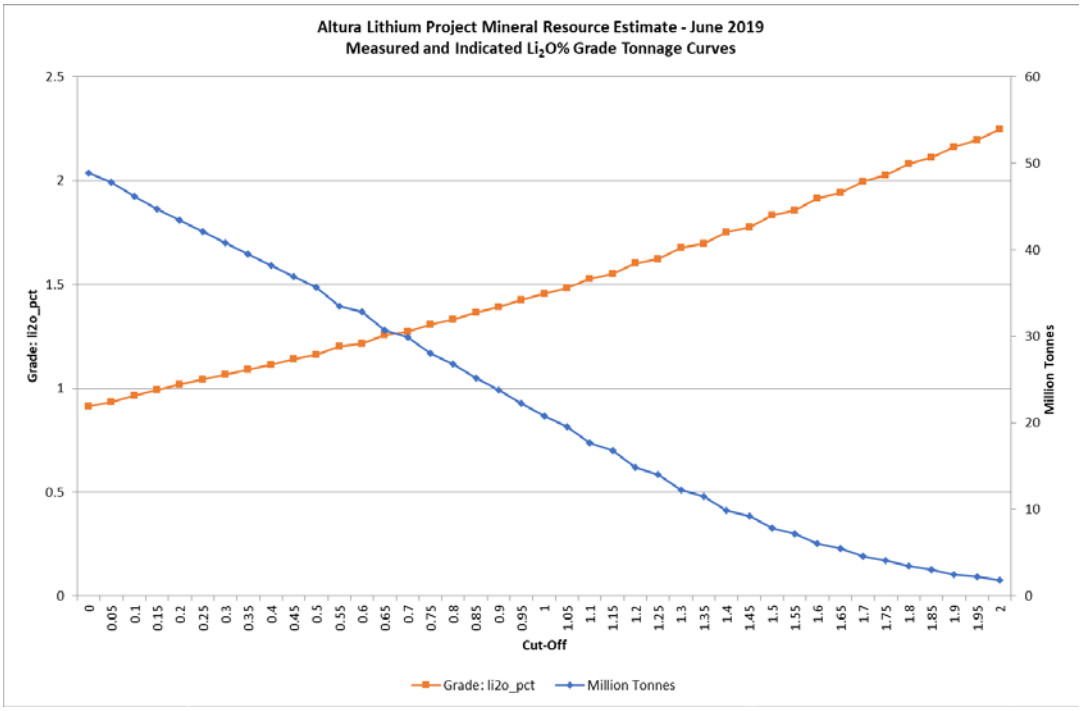
The reported Mineral Resources have been limited at depth using a “reasonable expectations” optimisation shell generated using 1.5 x the base price ($US690/t Spodumene Concentrate [6% Li_2O] gross price). This optimisation imposes a depth limit on the estimated Mineral Resource of -80mRL which is approximately 360m below the topographical surface.

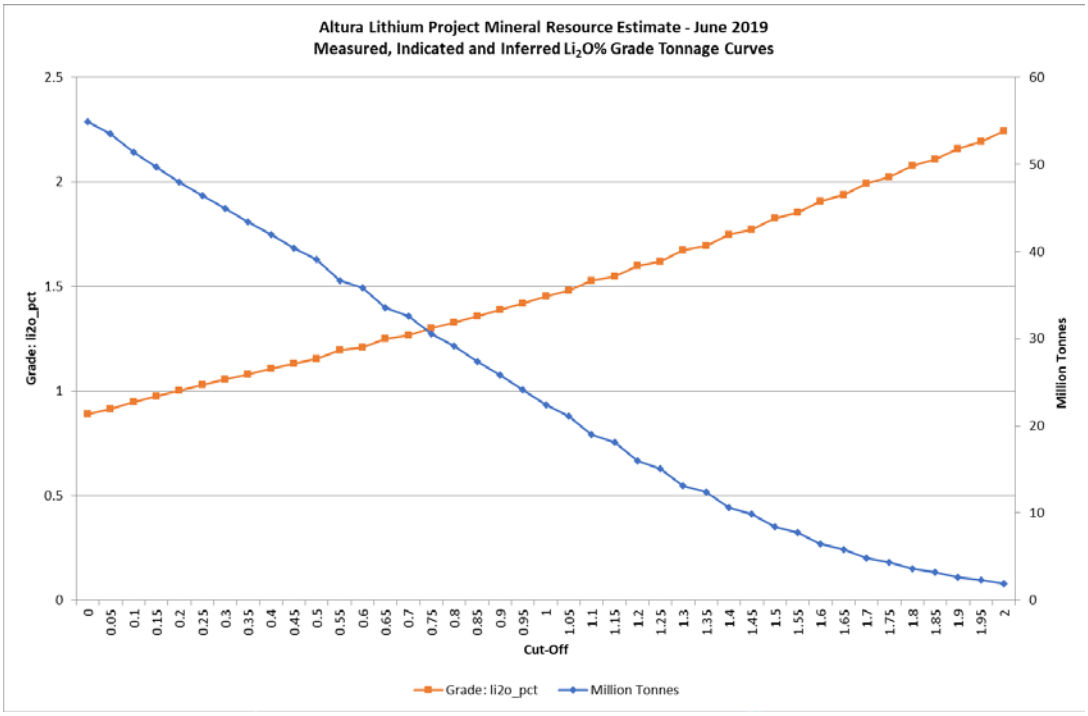
The Mineral Resource Estimate appropriately reflects the view of the Competent Person.

Cut-off Grade

The selection of mineralised domains has used geological factors only, represented by a logged pegmatite interpretation. No grade cut-off was used to determine the mineralised volume.

The Mineral Resource has been reported above a 0.30% Li_2O cut-off to appropriately reflect the tonnes and grade of estimated blocks that will meet the proposed beneficiation process. The proposed beneficiation process requires a feed grade of a consistent 1.00% Li_2O within a relatively small tolerance. The tonnes and grade of the deposit are relatively insensitive to cut-offs in the range 0.20 to 0.50% Li_2O as shown in the grade tonnage curve of the deposit (see below).





Mining and Metallurgical Methods and Parameters and other modifying factors

Mining or mineral extraction at the Pilgangoora deposit is open cut mining. The MRE has been undertaken using open pit mining methods and the choice of SMU size (5mEW x 5mNS x 3mRL) is based on the scale of mining equipment used.

A determination of the reasonable prospects for eventual economic extraction by open pit mining methods has been made by determining an optimal pit shell based on 1.5 x base price ($US690/t Spodumene Concentrate [6%Li_2O] gross price). This price is based on the weighted average price from the Stage 2 Definitive Feasibility Study (Stage 2 DFS) which used the average concentrate price from seven external forecasters.

Altura has completed 8 HQ diamond and 9 PQ size diamond holes in the pegmatite resource and during the latter part of 2015 and in 2016 detailed metallurgical studies on HQ diamond core and a 5000kg bulk sample from the PQ core were carried out. This work closed out the future work items from the Feasibility Study, optimised and improved the process flow sheet, and explored the variability of the ore body. The test work included materials handling, HLS, liberation, mica removal, DMS, grind size, flotation, thickening, filtration, and tailings rheological investigations.

Metallurgical test work carried out in late 2017, confirmed the correct choice of current flow sheet using DMS and milling/flotation for fines and middlings for optimum value recovery over the long term.

Tenement Constraints

As with the previous Ore Reserve Estimate (see ASX Release on 28 May 2018), it is assumed in this latest Ore Reserve that mining may take place on the adjacent Pilbara Minerals tenement to the east to facilitate accessing of deeper Ore Reserves on the Altura tenement. Only the ore that is contained within the Altura tenements is included in the Ore Reserve Estimate.

There is a reasonable expectation that mining across the tenement boundary will be able to take place. This assumption is supported by ongoing discussions between the two parties which as yet have not been finalised. The ore that would be subject to any potential mining is outside of Altura's 5 Year Mine Plan and if required further deferment is possible with variations to the Life of Mine scheduling sequence.

The mining on the Pilbara Minerals side of the tenement boundary has been dealt with on a conservative basis in the estimation of these Ore Reserves, in that all mining costs are assumed to be paid by Altura. Furthermore, no economic value has been allocated to potential Ore Reserves on the Pilbara Minerals tenement, which are therefore also excluded from the reporting of the Ore Reserves.

Ore Reserve Estimate (Summary Information Required by Listing Rule 5.9.1)

Material Assumptions

The material assumptions which support the Ore Reserve Estimate, the Production Targets and the forecast financial information derived from the Production Targets are disclosed in the body of the announcement and outlined in the ASX Additional Information – Material Assumptions section, with the exception of commercially sensitive information.

The mining costs used by Cube in the calculation of the Ore Reserve Estimate were based on the physicals derived from the Stage 2 DFS. Mining costs were obtained from Altura's mining contractor,

NRW, who is currently on site and has experience in WA hard rock operations with current diesel fuel prices and an owner cost component developed by Altura.

Criteria Used for the Classification of Ore Reserves

Ore Reserves were estimated on the Measured and Indicated portions of the Mineral Resource Estimate. The Ore Reserves are reported at a 0.30% Li_2O cut-off. This cut-off which is above the theoretical economic cut-off has been selected to provide a +1.0% Li_2O feed grade to the process facility.

An open pit optimisation, including sensitivity analysis, was completed. Slope design criteria, and processing recoveries were applied in the pit optimisation process together with mining, processing, transport and sales cost estimates, and revenue projections to form the basis for pit designs and subsequent mining and processing schedules. The Ore Reserve Estimate has been classified as Proved and Probable based on guidelines specified in the 2012 JORC code. The Mineral Resources in this report are reported inclusive of Ore Reserves.

Mining Method and Assumptions

A conventional open pit mine method is being used in Stage 1 and the same is proposed for the Stage 2 DFS. The updated resource model is a recoverable resource estimate, taking into account estimation of dilution and ore losses in the estimation based on a selective mining unit and as such no further factors of mining dilution or ore losses have been applied in the estimation of the Ore Reserves.

Major modifying factors include: 0.3% Li_2O cut-off grade; ore production rate of 3.08 Mtpa; 80% recovery of Li_2O as 6% Spodumene concentrate; Gross price of US$690/t Conc.; overall processing cost of A$18.04/t ore; and waste mining cost at surface of A$3.20/t mined.

Processing Method and Assumptions

Stage 1 commenced production in July 2018 and has been progressing towards nameplate capacity and steady state production. Since production has commenced Altura has shipped 81kt of Spodumene [6% Li_2O] concentrate. Therefore, the core assumptions and results of the metallurgical process and recovery have been sourced from the FS for the LOM and the following assumptions remain unchanged from those stated in the previous estimate.

The process flow sheet was developed by DRA based on metallurgical test work by NAGROM and ALS undertaken in 2016. Comminution test work indicates rock of moderate hardness, resistant to failure by compression and highly abrasive. Beneficiation test work has indicated a process route to produce coarse and fine fractions of Spodumene concentrate at 6% Li_2O.

The pegmatite ore is processed using crushing and screening including HPGR, followed by up-flow classifier and dense media separation (DMS). The coarse DMS concentrate product goes directly to final product while the fine fraction is combined with the DMS middling fraction and processed through another circuit using grinding and flotation to produce a fine flotation concentrate that will also goes to final product.

The crushing, screening and processing plant has been operating since July 2018 and has produced 94kt of 6% spodumene concentrate to 30 June 2019.

The Ore Reserve has been produced based on the plant continuing to produce a 6% Li_2O Spodumene Concentrate.

Cut-off Grades

The Ore Reserves are reported at a 0.30% Li_2O cut-off, which is the same as the 0.30% Li_2O cut-off reported in the Mineral Resources. This cut-off is above the theoretical economic cut-off grade.

Estimation Methodology

Please refer to the discussion on this item as set out in the previous section which deals with the summary information required by LR 5.8.1 for Mineral Resource Estimates.

Infrastructure

The Altura Lithium Project is located in the West Pilbara region of Western Australia where good infrastructure is available for mining projects. A sealed highway provides access from Port Hedland, 90km to the north, to within 20km of the Project area. Water requirements for processing is from the water resources within the mine area, as per Altura's approved water license.

Power is produced on site using diesel generators. Product is trucked to a shed in Port Hedland and shipped to customers from a berth in the port at Port Hedland. The site operates on a fly-in fly-out basis with a village that houses operations personnel whilst on site.

Economic

The economic analysis is based on cash flows driven by the production schedule. The cash flow projections include:

- Initial and sustaining capital estimates.
- Mining, processing and concentrate logistics costs to the customer based on FOB pricing.
- Revenue estimates based on concentrate pricing adjusted for fees, charges and royalties.
- Closure costs.
- Company tax estimates.
- A 10% discount factor

The Stage 2 DFS released on 30 April 2018 showed a positive NPV.

Spodumene pricing was based on forecasts from seven external pricing forecasters.

Spodumene revenue factors were:

- Variable head grade averaging 1.05% Li_2O over 15 years of the mine life
- Processing recoveries applied at 80%.
- Spodumene price of US$690/t for 6% Li2O content
- Exchange rate of 0.75 AUD:USD
- Transportation charge of A$32.05/wet tonne
- Port charge of A$4.00/wet tonne
- State royalty of 5%
- Native title royalty of 1%
- Other royalties of 3.5%

Other Non-Mining Modifying Factors

The mine is operating under the Mining Proposal that was approved in February 2017.

The Company has signed Native Title and Landholder Agreements in place.

Road access from the Great Northern Highway is based on part public road and part pastoral access track – both having been upgraded to allow for heavy haulage vehicles that take to product to Port Hedland with the pastoral track also covered by an Altura miscellaneous license.

The global revolution in electric vehicles and static storage systems has placed enormous demand on raw materials, the lithium market continues to grow significantly. Whilst a handful of Australian spodumene producers have entered the market in the last 12 months, there is limited additional capacity (in terms of funded projects or approved and funded expansion) in the pipeline.

Conservative market estimates require a threefold increase in global lithium chemical production between now and 2025 (target requirement of 1,000,000 LCE). With Altura's Stage-1 capacity near nameplate (approximately 90% capacity), Altura is in an excellent position to leverage its world-class resource, tier-1 mining jurisdiction and geographical proximity to core customers and trading partners in the lithium chemicals/battery supply chain.

With regular exports since Q4 2018, Altura's customers report very favourably on the product, which is consistently high in lithium, low in impurities and at an optimal moisture content for handling/logistics and downstream processing.

Altura has four existing offtake partners committing a combined minimum of 220,000 dry metric tonnes per annum. Altura is also in advanced discussions with other entities for further offtake and trading opportunities.

Competent Persons Statements

The information in this report that relates to the Mineral Resource for the Pilgangoora lithium deposit is based on information compiled by Mr Stephen Barber. Mr Barber is a Member of the Australasian Institute of Mining and Metallurgy. Mr Barber is the Exploration Manager at Altura Mining Limited and has sufficient experience that is relevant to the style of mineralisation under consideration and to the activity of mineral resource estimation 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. Mr Barber consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Ore Reserve for the Pilgangoora lithium deposit is based on information compiled by Mr Quinton de Klerk. Mr de Klerk is a Fellow of the Australasian Institute for Mining and Metallurgy. Mr de Klerk is a Director and Principal Consultant of Cube Consulting Propriety Limited and has sufficient experience that is relevant to the activity of ore reserve estimation 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. Mr de Klerk consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

About Altura Mining Limited (ASX: AJM)

Altura is a key player in the global lithium market and is leveraging increasing demand for raw materials for manufacturing lithium ion batteries for electric vehicles and static storage uses. Altura owns and operates the world-class Altura Lithium Project at Pilgangoora in WA's Pilbara region, which has a production capacity of 220,000tpa of high-quality spodumene concentrate. The Company has completed a Definitive Feasibility Study on a potential Stage 2 expansion, with a Final Investment Decision to be taken depending on market conditions, securing funding for the expansion and entering into long-term offtake agreements with customers.

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Media

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Citadel-MAGNUS

JORC CODE, 2012 EDITION – TABLE 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• The Pilgangoora deposit was sampled by collecting outcrop rock chips; samples were also collected from reverse circulation or RC (chip) and diamond drilling or DD (core). • Drilling for assay samples was undertaken on a regular spaced grid (average 40m x 40m) and an infill grid in places (average 20m x 20m). All potential ore intervals and their contacts into barren wall rock were sampled. • RC drill hole samples were collected in one metre (1m) intervals from the beginning to end of each hole. Each 1m sample was split directly using a rig-mounted riffle splitter and then collected into a uniquely numbered calico bag. The remaining material for each 1m interval was collected directly off the cyclone into a numbered plastic bag and kept near the drill site for geological logging. • DD used a HQ diameter triple tube core barrel; the core was removed from the tube and then transferred to 4x1m HQ core trays. The core was marked up and logged in the core trays. Sample lengths were determined by the geologist, based upon the nature and location of the mineralisation logged in the core. Half core sample cut from mineralised zones was sent for assay analysis. • Mineralisation was initially determined visually and confirmed by geological logging and geochemical assaying.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Drilling from 2010-13, included both RC (chip) and DD (core). This work was undertaken using Altura's PRD2000 multipurpose rig rated at 1120 cfm @ 350psi. The RC drilling used a 5.2"" (132mm) face sampling hammer, the diamond drilling used HQ (63.5mm internal) coring. The RC holes were sampled from the surface. DD holes were pre-collared to 3m and then coring commenced. No core orientation was undertaken. • In April 2016, DD was carried out by DDH1, who supplied a Sandvik UDR 1200 (PQ3 size core; 85mm core diameter) truck mounted rig. No core orientation was undertaken. • In June to October 2016, RC drilling was undertaken with four RC drill rigs. Strike Drilling supplied a truck mounted rig SD02/ KWL700 (143mm hammer bit). Mt Magnet Drilling (MMD) supplied a RC450 Hydco track mounted rig (146mm hammer bit); MMD DR24/UDR259 track mounted rig (140mm hammer bit); and MMD MP1300 multipurpose truck mounted rig (146mm hammer bit). When required all the RC rigs utilised auxiliary compressors for additional air pressure. • In May to July 2017, RC drilling was undertaken using two RC drill rigs. Mt Magnet Drilling (MMD) supplied a RC450 Hydco track mounted rig (146mm hammer bit); and MMD MP1300 multipurpose truck mounted rig (146mm hammer bit). When required the RC rigs utilised

Criteria	JORC Code explanation	Commentary
		auxiliary compressors for additional air pressure. • In February to March 2018, RC drilling was undertaken using a RC drill rig. Mt Magnet Drilling (MMD) supplied a RC450 Hydco track mounted rig (146mm hammer bit). When required the RC rig utilised an auxiliary booster compressor for additional air pressure.
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.*	• No direct recovery measurements of RC samples were performed. Sample recovery at the rig is visually estimated and recorded for loss per sample interval. • Representative drill chips for each 2m interval were collected by the Rig Geologist during logging carried out from 2010-16. • Representative drill chips for each 1m interval were collected by the Rig Geologist during the 2017-18 logging. • RC sample recovery was maximised by stopping drilling at the metre interval and air-flushing the cyclone contents through the splitter to maximise recovery. • HQ core was recovered in nominal 3m drill runs (or intervals) and marked by the drillers core block. The core was later marked by the Rig Geologist in 1m intervals and the drill core recovery was measured. • Diamond drilling was targeted at maximum core recovery of greater than or equal to 95%. • The assay results of duplicate RC and twinned diamond drill hole samples do not show a sample bias which may have been caused by the preferential loss/gain of fine/coarse material within the mineralised pegmatites.
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.*	• All RC and DD holes were logged by Rig Geologists. • Representative drill chips for each 1m or 2m interval in the RC holes were collected by the Rig Geologist. The drill chips from these intervals were dry and wet sieved and then lithologically logged. The RC logging undertaken on the 1m or 2m intervals documented the lithology, colour, texture, alteration and mineralisation of each interval using Altura Mining's standardised logging codes. • A representative sample for each 1m (2017-18) or 2m (2010-16) interval was placed in chip trays for future reference. • The DD logging undertaken on the core intervals documented the lithology, colour, texture, alteration and mineralisation of each interval using Altura Mining's standardised logging codes. Geological contacts (or boundaries) were accurately logged. A representative sample was placed in core trays for future reference. • All DD holes were measured for rock-quality designation or RQD and structural data (for example, joints, faults/fractures and natural breaks) was measured and logged.

Criteria	JORC Code explanation	Commentary
		• The RC and DD logging was considered quantitative in nature. • All of the chip and core trays were photographed (full length of each hole) for future reference purposes. • All recovered RC and DD intersections were logged.
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.*	• RC samples were normally dry. If water was present, it was expelled (if possible) from the hole before sample was collected. • RC samples for 1m intervals were split using a riffle splitter mounted on each RC rig to provide a 1/8th sample. • The split samples were stored in numbered calico sample bags. The sample numbers used in each drill hole were recorded by the Rig Geologist. • Diamond core was ½ or ¼ cut (for check sampling and metallurgical purposes) with sampling from the same side where possible. • Sample preparation for both RC chips and DD core, required that the whole sample was crushed to 2mm, then rotary divided and a 500g (approximate) sample was pulverised to -75 microns. A 0.2g split was then sent directly to a microwave-assisted dissolution. HF acid MAD's are performed in sealed vessels at temperatures up to 200°C and pressures up to 20 Bar. Digests were controlled with respect to microwave power, vessel temperature and vessel pressure to achieve reproducible digestion conditions across a wide range of sample materials. • Samples collected in 2017 were sorted, weighed, dried and pulverised to nominal 90% <75um using Labtech Essa LM5 pulveriser. • Samples in 2018 were sorted, weighed, dried and pulverised using a routine 5-minute grind time to deliver Intertek's required quality specification of P85 75um. • Random duplicate samples for analyses were taken from most of the pegmatite intersections. The range between the original and duplicate sample data was on average 10-15%. • Each laboratory also inserted its own check samples in each assay batch. • The drill sample sizes were considered appropriate to represent the spodumene mineralisation, based on the average size of spodumene crystals (up to 50cm) and the thickness and overall consistency of mineralisation within the pegmatite hosts.
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*	• Initial samples up until June 2011 were dispatched to Ultra Trace Laboratories in Perth. • All subsequent sample submissions up to October 2016 were sent to LabWest in Perth. • Both laboratories are NATA (National Association of Testing Authorities, Australia) certified. • Li (ppm), Al_2O_3%, CaO%, Fe_2O_3%, K_2O%, MgO%, MnO%, Na_2O%, P_2O_5%, SO_3% and TiO_2% were assayed using microwave assisted

Criteria	JORC Code explanation	Commentary
	(eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	HF acid digest with an ICP-OES finish, while Be (ppm), Cs (ppm), Nb (ppm), Rb (ppm), Sn (ppm), Ta (ppm), Th (ppm) U (ppm) and W (ppm) were digested with an ICP-MS finish. This technique is considered an effective for whole rock determination. • The Certified Reference Materials (CRM) rate used by LabWest was 2 in every 24 samples and 7 CRM's (2 lithium ores, 1 rock, 1 soil, 3 pegmatites) were used. Internal lab splits (post-crushing) were done on 1 in 40 samples and pulp repeats were inserted at the rate of 1 in 24 samples. LabWest randomly inserted in-house standards to check their internal QC sampling. • Random, blind re-submission of pulps from LabWest to an external lab (Ultra Trace) for check assaying was carried out. • In 2017, the samples were submitted to SGS Australia's Laboratory in Perth. This lab is NATA certified encompassing ISO17025. • Two analyses methods were used by SGS. • The first method used by SGS was the determination of elements by Sodium Peroxide Fusion with ICP finish. Each sample was fused with sodium peroxide in a zirconium crucible and the melt was leached with hydrochloric acid and made to volume. The solution from the digest was presented to an ICP-OES for the quantification of Li (ppm) and Fe (ppm). • The second method used by SGS was the determination of Elements by Borate Fusion with XRF finish. Each sample was fused in a platinum crucible using lithium metaborate / tetraborate flux and the resultant glass bead was irradiated with X-Rays and the elements of interest were quantified. These elements were Al (ppm), Ca (ppm), Fe (ppm), K (ppm), Mn (ppm), Na (ppm), P (ppm), Si (ppm) and Ti (ppm). • SGS used the following QC protocol: Blanks 1:50 (Reagent blank); Standards (CRM) 2:50; Repeats 1:50 (re-weigh from original assay packet); Duplicates 5% (sub-sampled at preparation stage from fine reject and analysed together at end of batch). • SGS used 9 CRM's. • In 2018, the samples were submitted to Intertek Genalysis Laboratory in Perth which is ISO17025 accredited. • The method used by Intertek was the determination of elements by Sodium Peroxide Fusion with ICP finish. Each sample was fused with sodium peroxide in a zirconium crucible and the melt was leached with hydrochloric acid and made to volume. The solution from the digest was presented to an ICP-OES for the quantification of Al (%), Ca (%), Fe (%), K (%), Li (%), Mn (%), Si (%) and Ti (%); Rb (%) was reported using a MS finish. • The quality control protocols employed by Intertek made use of control blanks (reagent blanks), checks (pulp duplicates) and reference materials which may be certified reference materials. Normally blanks were employed in at least 1% of the samples and checks and

Criteria	JORC Code explanation	Commentary
		reference materials about 4% of the samples. • Intertek used 7 CRM's. • Field duplicates were randomly inserted by the drilling offsider when mineralised pegmatites were intersected. The position of each duplicate sample was logged by the Rig Geologist. The general practice was to include a duplicate sample in every intersected pegmatite. The duplicate samples were submitted along with the remaining chip samples. • During the 2017 and 2018 drill programs, the Rig Geologist also added a blank (industrial sand) and CRM standard in addition to the duplicate samples collected in the field. • In August 2017, Altura requested an external laboratory check of samples pulps stored by SGS and a set of CRM standards. This work was carried out by Intertek Genalysis which is ISO17025 accredited. • The analyses methods used by Intertek were identical to those used by SGS. • The quality control protocols employed by Intertek made use of control blanks (reagent blanks), checks (pulp duplicates) and reference materials which may be certified reference materials. Normally blanks were employed in at least 1% of the samples and checks and reference materials about 4% of the samples. • Intertek used 7 CRM's. • The QC samples used by Altura plus laboratory splits and internal standards have indicated the assaying shows acceptable levels of accuracy and precision. • No geophysical tools, spectrometers or hand-held XRF instruments were used in determining any of the assay data included in this resource.
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.*	• Drill hole geological and geotechnical logging was undertaken on site by qualified Rig Geologists during the various drill programs in 2010-13 and 2016-18. • All completed RC and DD holes were logged. • A complete dataset of lithology logs plus photos of the chip trays and the diamond core have been examined and confirm the observed pegmatite mineralisation intervals correspond with the assay data. • A large selection of the RC chips and DD core was also viewed on site at Pilgangoora. • Some significant intersections from the 2010-13 RC programs were twinned by a nine-hole DD program in April 2016 to confirm the thickness of the pegmatite intersections. This information was used as a check in the November-December 2016 resource estimation work. • Assay data was provided by the various laboratories as certified data files. • All survey, lithology and assay data was input to Excel spreadsheets that were exported to Datashed. Data validation and cross-checking was conducted using manual checks and an automated verification function.

Criteria	JORC Code explanation	Commentary
		• Lithium assay data were initially recorded as Li (ppm). It is standard industry practice to present lithium results as Li_2O%. This is done by applying a conversion factor – the Li (ppm) was divided by 10,000 and that result was then multiplied by 2.153 to calculate the Li_2O%.
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.*	• All drill hole collars from 2010-13 and 2016 were surveyed by Heyhoe Surveys, Geraldton, WA using a Trimble R6 RTK GPS system with an accuracy of +/- 0.02m in the horizontal and +/- 0.03m in the vertical relative to control station Pilg1. Pilg1 was established by R6 RTK GPS using SSM KM3 Marble Bar38 (horizontal) and SSM R610 (vertical). • The grid co-ordinates used were Map Grid of Australia (MGA) and GDA94 Zone 50. AHD elevations use the Ausgeoid98 Geodic model. • The drill hole collars from 2017-18 were surveyed by Altura Survey personnel using a Leica GS10/AS10 Base station and Leica GS16/GS14/CS20 RTK Rover set. • The collars were located by RTK GPS to an accuracy of +/-0.02m (X/Y/Z). • The Grid System used by Altura on site is MGA Zone 50K. • Topographic control supplied by Altura Survey was collated from combined RTK GPS point data, Original LiDAR data and recent UAV Aerial data. Surface levels over the entire area of concern supplied by Altura Survey department are accurate to +/-0.10m. • The nature of the topography is such that the current number of survey points and their accuracy is considered adequate for the topographic control used for all completed exploration work and resource/ reserve estimation work. • Down hole surveys were completed on selected RC holes and their twinned DD holes over the extent of the Pilgangoora resource area. The 2010-13 surveys were completed by Down Hole Surveys of Perth, WA using a GyroSmart tool. The 2016-18 down hole surveys were completed using a Reflex Ez-Shot camera.
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.*	• Previously RC holes were drilled on a nominally spaced 40m x 40m grid pattern covering the strike extent of the Pilgangoora pegmatite zone. • In 2017, RC holes were drilled on an infill 20m x 20m grid pattern in the areas planned to be mined during the first three years of production. • The 2018 RC holes were drilled on a 40m x 40m grid pattern to infill previous drilling. • Both grid patterns are considered adequate spacing for establishing geological and grade continuity both along strike and down dip. From outcrop mapping and costean exposures, the pegmatite dykes exhibit consistency over distances exceeding 20-40m and data acquired from drill holes at this spacing is considered adequate for the definition of resource and reserve estimations in accordance with the JORC code.

Criteria	JORC Code explanation	Commentary
		• No sample compositing has been applied within the resource area.
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 strike of the pegmatite dykes is between 010-030ºNNE and the general dip is 25-45ºESE and occasionally up to 55-75ºESE. Most of the RC holes were drilled at -60º dip on azimuths between 270º and 300º, which enabled accurate measurement of the true width of the mineralisation and unbiased sampling. • A set of vertical RC holes were drilled along the eastern tenement boundary plus in some other areas, including the southern end of the deposit. These holes also achieved unbiased sampling. • All ore zones occur inside the intersected pegmatites.
Sample security	• *The measures taken to ensure sample security.*	• The chain of custody for sampling procedures and sample analysis was managed by the Rig Geologists and Field Technicians during the various drilling campaigns. • Sample material was geologically logged and the numbered calico sample bags were then collected from designated pegmatite intervals. These intervals were determined by the Rig Geologist either at the time of drilling or at the completion of a drill hole. • Three to four calico sample bags were placed in larger bags for sample transport and then stored on site temporarily while a sample batch (for a group of drill holes) was prepared. The total number of samples was checked on site by site personnel prior to being transportation to Port Hedland. • Initial samples were delivered by Toll-Ipec to Ultra Trace in Cannington, Perth and later samples were delivered by Regal Transport to LabWest in Malaga, Perth. The 2017 samples were delivered by Regal Transport to SGS in Perth. The 2018 samples were delivered by RGR Transport to Intertek in Perth. Staff from the various laboratories checked the sample bags and totals for each sample batch before commencing sample preparation. • Remaining DD core and RC chip samples collected for the drill hole library and are stored in secure facilities on site. • Assay pulps for all assayed samples are retained in permanent storage by Altura.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A review of sampling techniques used in 2010-13 and a thorough drill hole data review was undertaken by Ravensgate in September 2015 and then by Hyland Geological and Mining Consultants (HGMC) in August 2016. • The sampling methods used in the period from June to October 2016; May to July 2017 and February to March 2018 complied with industry standards. • In August 2017 Altura conducted an internal QAQC review of the sampling techniques used and data collected from May to July.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, 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.*	• The deposit lies within the M45/1230 and M45/1231 mining tenements which were granted on 26 August 2016. • Mining tenement M45/1260 which adjoins the western boundary of the M45/1230 tenement was granted on 6 February 2018. • These are owned 100% by Altura Lithium Operations Pty Ltd (a wholly owned subsidiary of Altura Mining Limited). • All tenements covering the deposit are in good standing and there is no known impediment to obtaining a license to operate.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no exploration for lithium completed on this ground by other parties.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Altura's Pilgangoora lithium project occurs at the southern end of a structurally controlled zone of pegmatite intrusive dykes within the synformal Pilgangoora greenstone belt. The pegmatite dykes are hosted within amphibolites which have a mafic and ultramafic volcanic origin. • A total of 15 mineralised pegmatites have been identified and these generally strike 010-030ºNNE and dip 25-45ºESE. The dykes range in thickness from 1-64m and are usually 8-14m thick. • The mineralised pegmatites are within a north-northeast (NNE) trending zone which is approximately 1600m long, 550m wide and up to 450m deep. • The mineralised pegmatites are located approximately 2-3km east of a granite contact. There are several barren pegmatites located in the zone between the granite contact and the mineralised pegmatite zone. Note – the granite contact and barren pegmatites were identified via sterilisation drilling carried out in 2016 for proposed infrastructure and waste dump areas. • Significant mineralisation in each of the pegmatites is confined to lithium and rubidium (almost wholly reporting in spodumene and muscovite respectively) with relatively low values for tin and tantalum or other associated minerals.
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.*	• Significant results were last reported in the stipulated format in an ASX announcement released on 10/04/18. • Drilling results were also reported to the ASX on 02/03/2011, 15/03/2011, 09/05/2011, 16/06/2011, 05/07/2011, 03/08/2011, 21/11/2011, 08/05/2012, 03/10/2012, 22/06/2015, 22/09/2016, 21/11/16, 30/01/17, 24/10/17 and 13/03/18. • A staged series of drilling programs commencing in August 2010 and extending through to March 2013 covered a majority of the pegmatite field with 290 drill holes. There were 282 RC holes (including four water bore holes) totalling 24,649m and

Criteria	JORC Code explanation	Commentary
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	eight diamond core drill holes totalling 1,387.9m completed during that period. • In April 2016, DD work comprised of 9 holes totalling 854m. • A total of 246 RC holes were completed from June-October 2016, totalling 41,070m. A total of 139 RC holes (25,233m) were drilled in the main deposit area and 107 RC sterilisation holes (15,837m) were completed within the areas designated for infrastructure, waste dumps, tailings storage facility and other associated surface installations. • In May to July 2017, 189 RC holes were completed totalling 8,369m. • In February to March 2018, 47 RC holes totalling 4,883m were completed. • During the period from 2010-18, a total of 17 DD holes (2,241.9m) and 764 RC holes (78,971m) have been completed.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No weighting or averaging techniques were used on samples or assays prior to reporting Exploration Results. • There has been no cutting of high grade intercepts as the nature of spodumene distribution in pegmatite lenses and the evidence of continuity from drill assay results is sufficient to accept higher grade values that are consistent between the intercepts. • No metal equivalent values are reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the 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 (eg 'down hole length, true width not known').*	• The drill holes were drilled at right angles (300°) or slightly oblique (270°) to the strike of the pegmatite dykes. In the main Pilgangoora deposit area the grid base line was oriented due north. In the eastern area initial drilling was on a 030°orientated grid; this orientation was also used in later drilling, including the drilling completed in 2016-18. • Most drill holes were angled at -60° and some vertical (-90°) holes were also drilled. The mineralised dykes regularly dip around 35° (range between 25-45°); reported thicknesses are about 10-15% greater than true thickness. • Calculated true widths were not reported however are correctly accounted for in 3D modelling.
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.*	• A copy of the pegmatite lodes and drill hole locations are shown in Figures 2 and 4 of this announcement.
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.*	• Balanced reporting of intersection results has been provided in this and all previous announcements.

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.*	• Preliminary metallurgical studies show that a spodumene concentrate grading over 6.00 Li_2O% can be produced. • 283 density measurements have been completed on diamond drill core. • RQD measurements and preliminary hardness tests. • Assays to date have not indicated any potential deleterious or contaminating substances.
Further work	• *The nature and scale of planned further work (eg 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.*	• Future infill drilling programs need to be carried within the remainder of the proposed mining area. • Closely spaced 'grade control' drilling of pegmatites is carried out during mining. • The assay results of the 'grade control' drilling were compared with the exploration and infill drilling results to quantify the estimated lithium grades.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	• Lithology data were logged in the field pro-forma spread sheets. • Lab submission sheets were digitally recorded in the same way. • Assay data were received from the laboratory in an electronic format and are imported directly into DataShed, a standard database system, which completed interval checks to ensure there were no data overlaps or duplicates. • All data were validated by Altura personnel prior to transmission to Cube Consulting Pty Ltd (Cube), in Perth, Western Australia, who completed the Mineral Resource Estimate (MRE) work in November-December 2016, August-September 2017, April-May 2018 and June-July 2019. • Any errors recorded from the various validation processes were manually checked and correlated back to the original database. If necessary, field checks were made to confirm validation issues.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person Stephen Barber made numerous visits to Altura's Lithium Project from July 2016 to June 2019. • During his time on site in 2016-19 he was responsible for the coordination of the drilling program, management and validation of the drilling database, plus he also provided assistance to the logging and sampling of the RC holes when required.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	• The geology of the intrusive pegmatite system is relatively simple. Confidence in the geological interpretation is high as infill drilling and the introduction of deeper drilling

Criteria	JORC Code explanation	Commentary
	• *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	has confirmed the size and position of the previously interpreted pegmatite lodes. • The distribution of Li_2O and other attributes estimated within the pegmatite bodies is more complex. Cube believes that the geological continuity and volume controls are well established where the drilling is at a nominal 20m x 20m (infill) and 40m x 40m (regular) hole spacings. • The data used to establish the geological model consisted of surface outcrop mapping, down hole geological logging of primarily RC drill chips, structural data and field observations. Numerous faults were identified through aerial photography, field observations, pit wall and pit floor mapping. These faults were incorporated in the modelling of the various pegmatite bodies. • Alternative geological models of the pegmatite bodies may in places be possible especially where drill data is more widely spaced. Cube would not expect a material effect on volume or grade resulting from such alternative interpretations. • Geology has been the primary basis for the interpretation of the mineralised volume which is based solely on the logged rock type 'pegmatite'. • Within the simple geometry of the geological pegmatite units the grades of estimated attributes vary due to geochemical factors, the geothermal gradient and fluid circulation pathways which determine the depositional concentration of Li_2O and other grade attributes estimated within the pegmatite volume.
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.*	• Mineralisation is contained within 15 individual pegmatite intrusive lodes which occur as a set of stacked lodes generally striking 010-030°NNE and dipping 25-45°ESE. The pegmatite lodes extend over 1600m north/south, extending from surface to a maximum of 450m below the topographical surface, and outcropping over an area 550m (east-west) wide. Mineralisation is present at surface for some lodes with most mineralised lodes starting from within 10m of surface.
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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage*	• The 2019 MRE used surface outcrop mapping, the existing interpretation of pegmatite lode 3DMs as a guideline, re-logging information of existing RC drill holes and various newly interpreted faults to re-interpret the pegmatite bodies and reflects the current structural understanding of the deposit. 15 Pegmatite bodies were interpreted during the 2019 MRE. • The 3DM wireframes have been generated using LeapFrog® implicit modelling and these wireframes have been used to select the data to be used and to constrain the estimated block volumes. • The interpretation of pegmatite volumes was based on the geological logging only and all grade data within each of the pegmatite geological units has been used in the

Criteria	JORC Code explanation	Commentary
	characterisation). • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	estimation. • Estimation of Li_2O%, Fe_2O_3%, MnO%, Rb ppm Al_2O_3%, SiO_2%, CaO%, MgO%, Cs ppm, Ta ppm, Be ppm and K_2O% was undertaken. • Drill intervals falling within the wire framed pegmatite lodes were coded in the database. Composites of each grade item were then generated using the Surpac "best-fit" method. On the basis of sample size, local grade variability, selectivity assumption (5mEW x 5mNS x 3mRL) and selected estimation methodology, Cube have chosen to use 1m down hole composites for this estimation. This composite size provides maximum resolution for modelling of local grade variability while still allowing for robust characterisation of the spatial structure (i.e. the variograms). No grade control data was used during the estimation. • Due to the nature of the mineralisation no estimation domains were found to contain extreme outlier grade values, and therefore no grade capping was undertaken. Based on the statistical characteristics of the key grade items and the proposed use of the resulting block model, Cube decided to undertake grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method within major pegmatite domains, which can provide small block estimates (5mEW x 5mNS x 3mRL) from relatively wide spaced data. • The LUC estimates were carried out for Li_2O and Fe_2O_3 and were implemented using the Isatis® software package before being transferred into a Surpac™ block model. LUC was undertaken in a selection of the largest pegmatite domains, with those deemed too small and poorly informed for LUC being estimated using Ordinary Kriging (OK) at a 20mEW x 20mNS x 6mRL 'Panel' block size. • Al_2O_3, SiO_2, K_2O, CaO, MnO, MgO, Cs, Ta, Be and Rb were estimated using Ordinary kriging into a Panel size block model (20mEW x 20mNS x6mRL). No grade capping was deemed necessary for the five deleterious elements with a low COV for most of the pegmatite domains. The estimates were subsequently imported into the SMU size block model (5mEW x 5mNS x 5mRL). The average element rade grade was assigned to smaller domains. • No consideration has been made with respect to by-products. • Statistical analysis shows that the seven variables being estimated are not sufficiently well correlated for the use of multivariate estimation methods and so each variable was estimated independently. • Block size for grade estimation was chosen in consultation with Altura and with due regard to data spacing, orebody geometry, and practical mining considerations. The estimation Panel size used was 20mEW x 20mNS x 6mRL. An SMU block size of

Criteria	JORC Code explanation	Commentary
		5mEW x 5mNS x 3mRL was chosen (no rotation) for use in the localisation process. This SMU block size conforms to the proposed mining flitch height. The data spacing would be considered too wide for such a small block size if conventional linear estimation methods were used. However, Cube has used the LUC method in major domains, which is intended specifically for estimating the grade distribution of smaller blocks using relatively wide spaced data points. • The OK estimates were validated by comparing the informing composite grade with the estimate per well informed domains, and swath plots were generated. • The LUC models were validated by comparing global declustered composite data to the estimates per estimation domain, on a semi-local basis by the use of swath plots and finally by visual cross-sectional and 3D observations of the modelled block grades against the informing drill data.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were assigned on a dry density basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The selection of mineralised domains has used geological factors only, represented by a logged pegmatite interpretation. No grade cut-off was used to determine the mineralised volume. • The Mineral Resource has been reported above a 0.3% Li_2O cut-off to appropriately reflect the tonnes and grade of estimated blocks that will meet the proposed beneficiation process. The proposed beneficiation process requires a feed grade of a consistent 1.00% Li_2O within a relatively small tolerance. The tonnes and grade of the deposit are relatively insensitive to cut-offs in the range 0.3 to 0.5% Li_2O as shown in the grade tonnage curve of the deposit.
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.*	• This MRE has been undertaken on the assumption of open pit mining methods, the choice of SMU size (5mEW x 5mNS x 3mRL) was based on the scale of mining equipment proposed for use, the current flitch height as well as orebody geometry. • The Mineral Resources reported have been limited to those estimated blocks within the optimised pit shell. • A determination of the reasonable prospects for eventual economic extraction by open pit mining methods has been made by determining an optimal pit shell based on 1.5 x base price ($US690/t Spodumene Concentrate [6%Li2O] gross price). This inflation of the base price is considered within reasonable possible future fluctuations of the lithium concentrate price based on recent and past trends. • As with the previous Ore Reserve Estimate (see ASX Release 28 May 2018), it is assumed in this latest Ore Reserve that mining may take place on the adjacent Pilbara Minerals tenement to the east to facilitate accessing of deeper Ore Reserves

Criteria	JORC Code explanation	Commentary
		on the Altura tenement. Only ore that is contained within the Altura tenements is included in the Ore Reserve Estimate. • There is a reasonable expectation that mining across the tenement boundary will be able to take place. This assumption is supported by ongoing discussions between the two parties which as yet have not been finalised. The ore that would be subject to any potential mining is outside of Altura's 5 Year Mine Plan and if required further deferment is possible with variations to the Life of Mine scheduling sequence. • The mining on the Pilbara Minerals side of the tenement boundary has been dealt with on a conservative basis in the estimation of these Ore Reserves, in that all mining costs are assumed to be paid by Altura. Furthermore, no economic value has been allocated to potential Ore Reserves on the Pilbara Minerals tenement, which are therefore also excluded from the reporting of the Ore Reserves.
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 selection of the 15 mineralised domains estimated has made no assumptions or predictions regarding metallurgical amenability. • The metallurgical test work undertaken by Altura for the DFS 2016 has confirmed to a high level of confidence the amenability of the ore to beneficiation. • Stage 1 production commenced in July 2018 and Altura has shipped 81kt of Spodumene [6% Li_2O] concentrate to customers. This confirms the ability of the plant to produce concentrate from the ore feed.
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 possible waste and process residue disposal options. • There are currently no known material environmental issues concerning the extraction or disposal of waste or tailings materials.
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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• In total 283 bulk density measurements were carried out using the Archimedes Method on 100.7 representative linear metres from pegmatite dyke and waste rock material acquired from eight DD holes. The DD holes were collared at representative locations distributed throughout the pegmatite lodes. The DD core results provide a source of competent rock bulk density data for material below 4m to a depth of over 100m. There is very little oxide or transitional weathered rock within the project area with pegmatite dykes frequently outcropping.

Criteria	JORC Code explanation	Commentary
		• On balance Cube believe that there is sufficient data to allow the assignment of average values to the MRE block model but not enough to allow a spatially representative estimation of bulk density. Cube has used assumed bulk density values based on an interpreted weathering surface separating fresh from weathered material.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The geological model and continuity of the pegmatite lodes is currently well understood due to the surface mapping and drill hole testing. The stability of the interpretation with the introduction of infill drilling supports a moderate to high confidence in the estimated tonnage. • Grade continuity is less well understood and variability within each pegmatite lode and between individual pegmatite lodes occurs. Confidence in the estimated grade continuity is a direct function of information density and is characterised by geostatistical modelling parameters. • The geostatistical characteristics of the mineralisation (Li_2O grade distribution) can be summarised as moderately low relative nugget (20-35%) and maximum ranges of between 50 and 110m. Approximately equal proportions of the variance are distributed between the first and second structures of the variogram models. • The deposit is drilled tested at a variable spacing ranging from 20m x 20m at near surface central portions to 40m x 40m at the peripheral and deeper parts. There is a reasonable expectation that locally estimated grades may vary when closer spaced data is available (grade control mining drill hole data for example). The various drill campaigns have demonstrated that at the mining scale, continuity variations may be seen where the exploration drilling has not resolved the lode complexity. • The MRE has been classified as Measured, Indicated or Inferred based on geological continuity, assay data representivity and a set of summary estimation quality parameters including the average distance from informing composite data and the theoretical slope of regression (true to estimated blocks) parameter. • Estimated pegmatite with an average distance from composite data of 30m or less has been classified as Measured. This results in the Measured blocks having an average distance of 20m to composite data globally, and an average global slope of regression of 0.5. Estimated pegmatite with an average distance from composite data of 50m or less has been classified as Indicated. This results in the Indicated blocks having an average distance of 30m to composite data globally, and an average global slope of regression of 0.3. Estimated pegmatite classified as Inferred has an average distance to composite data of 70m and a slope of regression of 0.06.

Criteria	JORC Code explanation	Commentary
		• The reported Mineral Resources have been limited at depth using a "reasonable expectations" optimisation shell generated using 1.5 x base price ($US690/t Spodumene Concentrate [6%Li_2O] gross price). This optimisation imposes a depth limit on the estimated Mineral Resource of -86mRL which is approximately 360m below the topographical surface. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No independent audits or reviews have been undertaken on the June 2019 MRE.
• **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 statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The relative accuracy of the Mineral Resource Estimate is reflected in the classification and reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code. • No statistical or geostatistical studies have been undertaken to quantify the relative accuracy of the estimate. • The material factors relevant to the confidence limits implied in the classification include the sample data density represented in the block model attribute as average distance to composite data and the summary parameter of estimation quality "slope of regression of true to estimated blocks". In general blocks estimated by composite data within 30m average distance have been classified as Measured, those within 50m as Indicated. Blocks estimated with more distal composite data within the applied depth limit are classified as Inferred. • The Measured and Indicated Mineral Resources globally have been estimated with data that is on average within 30m of the block well within the ranges of modelled variograms. Those Mineral Resources classified as Inferred have been estimated with data that is on average within 70m of the block, at the maximum range of the modelled variograms. • There are a couple of areas of lower confidence in the Indicated category due to lack of drill hole information, and they are mainly between Northing 7,668,280m to 7,668,420m and between Northing 7,668,320m to 7,668,420, where additional drilling will be required to increase confidence in these areas. • Due to the Altura drilling located at the eastern lease boundary, testing the deeper parts of the pegmatite lodes there is minimal extension of the estimation past data in the Inferred Resources. • The introduction of close spaced grade control drilling will vary the estimated SMU block grades, the variations within the Measured and Indicated Mineral Resource are expected to have a low impact on the economic viability of the project over a medium term. • The block model estimate is a local resource estimate which has a block size chosen at

Criteria	JORC Code explanation	Commentary
		the expected "SMU" selection size. The localisation method used results in a model consisting of SMU sized blocks with a unique grade assigned suitable for technical and economic evaluation. • As of 30 June 2019, a total of 1,517,284 tonnes at 1.16% Li_2O was mined for the past twelve months, which was reconciled against the model estimate of 1,705,513 tonnes at 1.11% Li_2O. Since the commencement of mining 1,770,080 tonnes at 1.13% Li_2O has been mined, which reconciles against the model estimate of 1,970,897 tonnes at 1.10% Li_2O. This reconciliation has resulted in a change of SMU to match the mining recovery.

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Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The resource model used as the basis for this Ore Reserves update was compiled by Cube Consulting, based on the latest available drilling information. The model was estimated by Localised Uniform Conditioning methods with an assumption of mining selectivity dimensions of 5mEW x 5mNS x 3mRL. The resource model estimation is discussed in detail in Section 3 of this Table. • The Mineral Resources reported are inclusive of the Ore Reserves reported here.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• A site visit was attended by the Competent Person, Mr Quinton de Klerk in January 2017. During the site visit Mr de Klerk met with key operational personnel, view the proposed infrastructure sites, the pit location relative to the natural terrain as well as the mining camp and surrounding general infrastructure and regional setting.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore* • *Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• A Feasibility Study (FS) was completed in 2016 and was accompanied by a maiden Ore Reserve estimate with an updated Ore Reserve reported in October 2017. In April 2018 the Stage 2 Definitive Feasibility Study (Stage 2 DFS) was completed. This latest study is the basis of the assumptions used in this update. • Key changes to the basis of this estimate compared to the October 2017 Ore Reserves include: o the updated Mineral Resource; o the processing throughput increase from 1.54 Mtpa to 3.08Mtpa o The project has progressed past the Stage 1 study stage of development with construction of the major infrastructure having commenced. o The crushing circuit has been commissioned and first ore crushed. o Full commissioning of Stage 1 completed in July 2018

Criteria	JORC Code explanation	Commentary
		o Mining has been ramping up over the past 12 months
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The Ore Reserves are reported at a 0.3% Li_2O cut-off, which is the same cut-off used in the reporting of the Mineral Resources. This cut-off which is above the theoretical economic cut-off has been selected to provide a +1.0% Li_2O feed grade to the processing plant.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• The following processes are consistent with those reported in the Ore Reserves estimate May 2018 and updated assumptions are also sourced from the Stage 2 DFS (2018): o An open pit optimisation was completed. Slope design criteria, processing recoveries were applied in the pit optimisation process together with mining, processing, transport and sales cost estimates, and revenue projections to form the basis for pit designs and subsequent mining and processing schedules. o A conventional open pit mine method was chosen as the basis of the Stage 2 DFS. Ore is exposed at surface requiring minimal pre- stripping and pre-production mining activities. o A small-scale mining fleet, utilising 200t excavators matched with 140t rear dump trucks, was selected using contract mining services. o Inter-ramp slope angles of 58° were used based on geotechnical guidance provided by Peter O'Brien and Assocs. A ramp width of 24m based on the selected truck size. The resulting overall slope angles on the final pit range from 45° to 58° in fresh rock and 29° to 46° in oxide material, depending on ramp location and natural flat areas mostly in the footwall areas. o Major assumptions for pit optimisation include: 0.3% Li_2O cut-off grade; ore production rate of 3.08Mtpa; 80% recovery of Li_2O as 6% Spodumene concentrate; Gross price of US$690/t Conc.; overall processing cost of A$18.04/t ore; and waste mining cost at surface of A$3.20/t mined. o Mine design criteria, used for detailed pit design, include: - 6m blast bench height mined in 2 x 3m flitches; - minimum mining width of 38m applied between cutbacks and 16m at the base of stages; - ramp width of 24m and 10% gradient suited to the 140t dump trucks. - Mining Infrastructure was limited to ROM pad, haul roads, workshops and other buildings for a Contract mining operation. o The updated resource model is a recoverable resource estimate, taking into account estimation of dilution and ore losses in the estimation based on a selective mining unit and as such no further factors of mining dilution or ore losses have been applied in the estimation of the Ore Reserves.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• Stage 1 commenced production in July 2018 and has been progressing towards nameplate capacity and steady state production. Since production has commenced Altura has shipped 81kt of Spodumene [6% Li_2O] concentrate. Therefore, the core assumptions and results of the metallurgical process and recovery have been sourced from the FS for the LOM and the following comments remain un-changed from those stated in the previous estimate: o The process flow sheet was developed by DRA based on metallurgical test work by NAGROM and ALS undertaken in 2016. o Comminution test work indicates rock of moderate hardness, resistant to failure by compression and highly abrasive. o Beneficiation test work has indicated a process route to produce coarse and fine fractions of Spodumene concentrate at 6% Li_2O. o The pegmatite ore is planned to be processed using crushing and screening including HPGR, followed by upflow classifier and dense media separation (DMS). The coarse DMS concentrate product will go directly to final product while the fine fraction will be combined with the DMS middling fraction and processed through another circuit using grinding and flotation to produce a fine flotation concentrate that will also go to final product. o All technologies proposed are proven and well tested with easily sourced components. o Samples used for metallurgical test work were sourced from 9 holes distributed evenly across the deposit to derive an average recovery of 80% as used in the pit optimisation. o Potential deleterious elements have been observed at low concentration in the test work samples (e.g. Iron averaging 0.8% Fe_2O_3 in head grade to approximately 1.1% Fe_2O_3 in float concentrate post Magsep and 0.08% in DMS concentrate post Magsep). o The Ore Reserve has been produced based on a 6% Li_2O Spodumene Concentrate.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Environmental studies have been conducted over the project area. Mining/processing activities associated with the Project are not expected to have significant impacts on the environment. • Flora and fauna surveys have been conducted over the project area. There were no threatened ecological communities, rare flora or conservation significant fauna habitats identified within the project area. • Geochemical testing of waste rock indicates that the waste rock is generally benign in nature and there are not expected to be any environmental impacts from long term waste rock storage. • Current geochemical testing of tailings indicates that the process residues are neutralising. • In early drilling from 2010 through to early 2013 there were no reported occurrences of fibrous material during this drilling. In 2016 much more

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		intensive and broader spaced drilling was carried out and intermittent intersections of fibrous material were recorded. The Perth laboratory of SGS Environmental were provided with a sample of the fibrous material and it was identified as Chrysotile. • A Mining Proposal and Mine Closure Plan (REG ID 63674) was approved for the Project by the Department of Mines, Industry Regulation and Safety (DMIRS) on 21 February 2017. • A Native Vegetation Clearing Permit (NVCP) was granted for the Project by DMIRS on 20 October 2016 (CPS 7246/1). • A Project Management Plan (PMP) was approved for the Project by DMIRS on 27 February 2017. • Altura has an approved license to take water (5C) for the Project (GWL182856 (2). • A Works Approval (W6036/2017/1) for the Project's process plant, Tailings Storage Facility (TSF) and a mobile crushing and screening facility was approved by the Department of Water and Environmental Regulation (DWER) on 7 July 2017. • An Operating Licence (L4432/1989/14) amendment to include the bulk material loading and unloading of spodumene concentrate was approved for the Project by DWER on 12 April 2018.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Project is located in the West Pilbara region of Western Australia where good infrastructure is available for mining projects. • A sealed highway provides access from Port Hedland to within 20km of the Project area. The 20km of Wodgina Access Road is currently being upgraded for the traffic load. • Water requirements for processing can be serviced from the water resources within the mine area, as per Altura's approved water license. • Power is produced on site using diesel generators. • Product is shipped via Port Hedland located 90km to the north. • The site operates on a fly-in fly-out basis based at an existing village within 20km to house operations personnel whilst on site.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of*	• The changes to the costs associated with the estimation of the Ore Reserves and as such the following commentary is based on a combination of the Stage 1 DFS and the Stage 2 DFS. The Stage 2 plant is a duplication of the Stage 1 plant and as such costs are based on actuals and current contracts. • Stage 1 is still ramping up to nameplate capacity and the unit costs have not reached steady state – as such for the LOM the costs used are from the Stage 2 DFS • Stage 1 has been in production since July 2018.

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	treatment and refining charges, penalties for failure to meet specification, etc. • *The allowances made for royalties payable, both Government and private.*	
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *he derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Spodumene pricing was based on forecasts from seven independent forecasters. • Spodumene revenue factors were: o Variable head grade averaging 1.05% Li_2O over 15 years of the mine life o Processing recoveries applied at 80%. o Spodumene price of US$690/t for 6% Li_2O content o Exchange rate of 0.75 AUD:USD o Transportation charge of A$32.05/wet tonne o Port charge of A$4.00/wet tonne o State royalty of 5% o Native title royalty of 1% o Other Royalties of 3.5%
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• The following comments relating to this section: o The Stage 1 Project has been in operation since June 2018 with Stage 2 awaiting approval from the Altura board o Altura has supplied regular exports since Q4 2018, Altura's customers report very favourably on the product, which is consistently high in lithium, low in impurities and at an optimal moisture content for handling/logistics and downstream processing. o Altura has three existing offtake partners committing a combined minimum of 205,000 dry metric tonnes per annum. Altura is in advanced discussions with a number of other entities for further offtake and trading opportunities.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Economic analysis undertaken as part of the Stage 2 DFS demonstrated economic viability. This is further supported by the fact that Stage 1 has been producing since July 2018. • The fundamentals of this updated Ore Reserve estimate give no reason to expect less favourable economic outcomes than estimated in the Stage 2 DFS and as such the economic viability has been confirmed.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Stakeholder support has been strong during property acquisition and through the permitting process. Agreements are in place with Landholders and Native Title parties.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study.*	• With the exception of the discussion on the tenement boundary, the following discussion points are unchanged from those reported previously: o No material naturally occurring risks have been identified. o The Company has granted mining leases for M45/1230, M45/1231 and M45/1260 covering sufficient area for the open pit, plant and other infrastructure. A Mining Proposal was submitted to DMIRS on 14 September 2016. There no apparent impediments to obtaining all government approvals required for the project.

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	Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	o The Company has signed Native Title and Landholder Agreements in place. • As with the previous Ore Reserve Estimate (see ASX Release 28 May 2018), it is assumed in this latest Ore Reserve that mining may take place on the adjacent Pilbara Minerals tenement to the east to facilitate accessing of deeper Ore Reserves on the Altura tenement. Only ore that is contained within the Altura tenements is included in the Ore Reserve Estimate. • There is a reasonable expectation that mining across the tenement boundary will be able to take place. This assumption is supported by ongoing discussions between the two parties which as yet have not been finalised. The ore that would be subject to any potential mining is outside of Altura's 5 Year Mine Plan and if required further deferment is possible with variations to the Life of Mine scheduling sequence. • The mining on the Pilbara Minerals side of the tenement boundary has been dealt with on a conservative basis in the estimation of these Ore Reserves, in that all mining costs are assumed to be paid by Altura. Furthermore, no economic value has been allocated to potential Ore Reserves on the Pilbara Minerals tenement, which are therefore also excluded from the reporting of the Ore Reserves.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Proved Ore Reserves were determined from Measured Resource material and Probable Ore Reserves were determined from Indicated Resource material as per the guidelines. • These results reflect the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No external reviews or audits have been undertaken on the Ore Reserves
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence*	• The following commentary based on the Stage 2 DFS and Ore Reserves estimate remains valid for the Ore Reserves stated here: o The Ore Reserve is the outcome of additional exploration drilling and the Stage 2 DFS. That has taken into account geological, metallurgical, geotechnical, process engineering and mining engineering considerations. It has a nominal accuracy of + 15% / -10%. o The Project has a NPV which makes it robust in terms of cost variations. It is sensitive to price variations for Spodumene, and recovery of the ore from within the pit. o All estimates are based on local costs in Australian dollars. o There are no known undisclosed areas of uncertainty. o The project has now been in production (Stage 1) since July 2018 and as such the physical and cost assumptions have been validated through actual production metrics • In the opinion of the Competent Person, the material costs and modifying factors used in the generation of the Ore Reserves are reasonable.

Criteria	JORC Code explanation	Commentary
	of the estimate should be compared with production data, where available.	