ASX ANNOUNCEMENT

ASX: CXO

25th May 2016

Rock chip assays confirm potential of Finniss Lithium Project

- **Spodumene and other lithium minerals have been identified by Core in and around the numerous historic pegmatite mine workings in the Finniss Lithium Project**
- **Results received from Core's first pass reconnaissance rock chip sampling from Mt Finniss Pegmatite Mine in the NT assay up to 0.8% lithium (Li_2O)**
- **A further 25 historic tin tantalum pegmatite mines in the lithium prospective Bynoe Pegmatite Field are currently being evaluated, with first updates from some of these mines expected next month**
- **Upon receipt of all assay results Core will prioritise targets for a second round of sampling, with the objective of selecting initial targets for drilling within the Bynoe Pegmatite Field**

Core Exploration Ltd (ASX: CXO) ("Core" or the "Company") is pleased to announce that initial sampling of the Mt Finniss Mine (the largest historically producing pegmatite mine in the Northern Territory) within the Finniss Lithium Project has identified spodumene and other lithium minerals with lithium grades up to 0.8% Li_2O.

The assay results received represent Core's first round of sampling on its Finniss Lithium Project, and confirms the enriched lithium contents of the pegmatites within Core's Finniss Lithium Project, and also highlights the potential value of Core's large and dominant tenement position over a number of lithium rich pegmatite fields in the NT.

Lithium assays up to 7,859ppm (0.8%) Li_2O were recorded in Core's first assays of rock chip samples from Mt Finniss Mine indicating the pegmatite system has the potential to host economic grades of lithium. Lithium assays of the pegmatites sampled by Core in and around Mt Finniss Mine have highly enriched lithium contents that averaged well above 1000ppm (0.1%) Li_2O (Table1).

Core's mapping has also identified spodumene and a range of lithium minerals in outcrop and in and around mine workings and dumps on the Mt Finniss Project (Figure 1).

Figure 1. Highly weathered spodumene/feldspar pegmatite, Mt Finniss Project

Core's portfolio in the Bynoe Pegmatite Field includes a further 25 historic tin tantalum pegmatite mines for which sampling is underway. The Company anticipates receipt of first assay results from these mines in June.

To date there has been no systematic lithium exploration and the potential of the area has yet to be properly assessed given all of the historical work was primarily focused on defining tin-tantalum mineralisation.

Core's first reconnaissance sampling sought to characterise the lithium chemistry of various zones in the pegmatites and adjacent host wall rocks. Core will now be able to utilise this important lithium focussed data to target systematic sampling of the zoned pegmatites.

In this tropical environment near Darwin, much of the near surface material is weathered by soil and water processes and visual identification of minerals susceptible to weathering (spodumene, feldspars and other minerals) can be challenging (Figures 1 & 2).

Analysis of NTGS data from the Bynoe Pegmatite Field and other published research on spodumene shows that surface weathering of spodumene to clay minerals results in a decreased lithium levels in surface samples. As a result, lithium grades may be expected to be increase at depth and with drilling.

Figure 2. Pegmatite exposure in Mt Fitton Mine. Although lithium rich >1,000ppm Li_2O, much of the reactive mineralogy has been weathered to clay minerals.

Results

Lithium assays up to 7,589ppm (0.8%) Li_2O were recorded in Core's fist rock chip results and many of the samples from Mt Finniss Mine assayed above 1000ppm lithium (Table 1).

Lithium assays of the pegmatites sampled in and around Mt Finniss averaged well above 1,000ppm (0.1%) Li_2O indicating that the pegmatite Mt Finniss pegmatite system is highly enriched in lithium (Table 1) and has the potential to host economic grades of lithium.

Core's Finniss Lithium Project covers over 200km^2 and 25 other historic pegmatite mines, so has also have the potential to host economic grades of lithium on a large scale.

Prospect	Sample No	Li_2O (ppm)
Mt Finniss Mine	101831	7859
Mt Finniss Mine	2604	7394
Mt Finniss Mine	101823	5610
Mt Finniss Mine	2603	3540
Mt Finniss Mine	CE3094	3078
Mt Finniss Mine	CE3083	2890
Mt Finniss Mine	2605	2718
Mt Finniss Mine	CE3085	1537
Mt Finniss Mine	CE3090	1266
Mt Finniss Mine	CE3082	1200
Mt Finniss Mine	101827	1190
Mt Finniss Mine	CE3091	1133
Mt Finniss Mine	101832	1105

Table 1. Summary table of rock chip assays above 1,000ppm Li_2O Mt Finniss Mine (refer Section 2 for further detail).

Next Steps

Core's initial sampling is characterising the lithium chemistry of various geological zones within the pegmatites and will be used to potentially target the most lithium rich zones. This work represents the first systematic assessment of these historic mines and surrounding tenements for lithium, and further results from this initial programme are expected in coming weeks.

Core has also been examining historic mining reports which highlight the potential for extension of the Mt Finniss pegmatite north and south of the existing pits and extensive waste dumps (Figure 3).

Core is currently testing geochemical and satellite spectral mapping techniques to map extensions to mined pegmatites (like Mt Finniss) with the potential to also apply this technique to finding new pegmatites within the Finniss Project.

As the wet season continues to recede Core will have physical access to a larger proportion of the mine workings within the Finniss Lithium Project.

Core's field work is focussed on ranking pegmatites with potential for economic grade and scale to prioritise for drill testing. Further updates on this work will be made progressively over coming weeks.

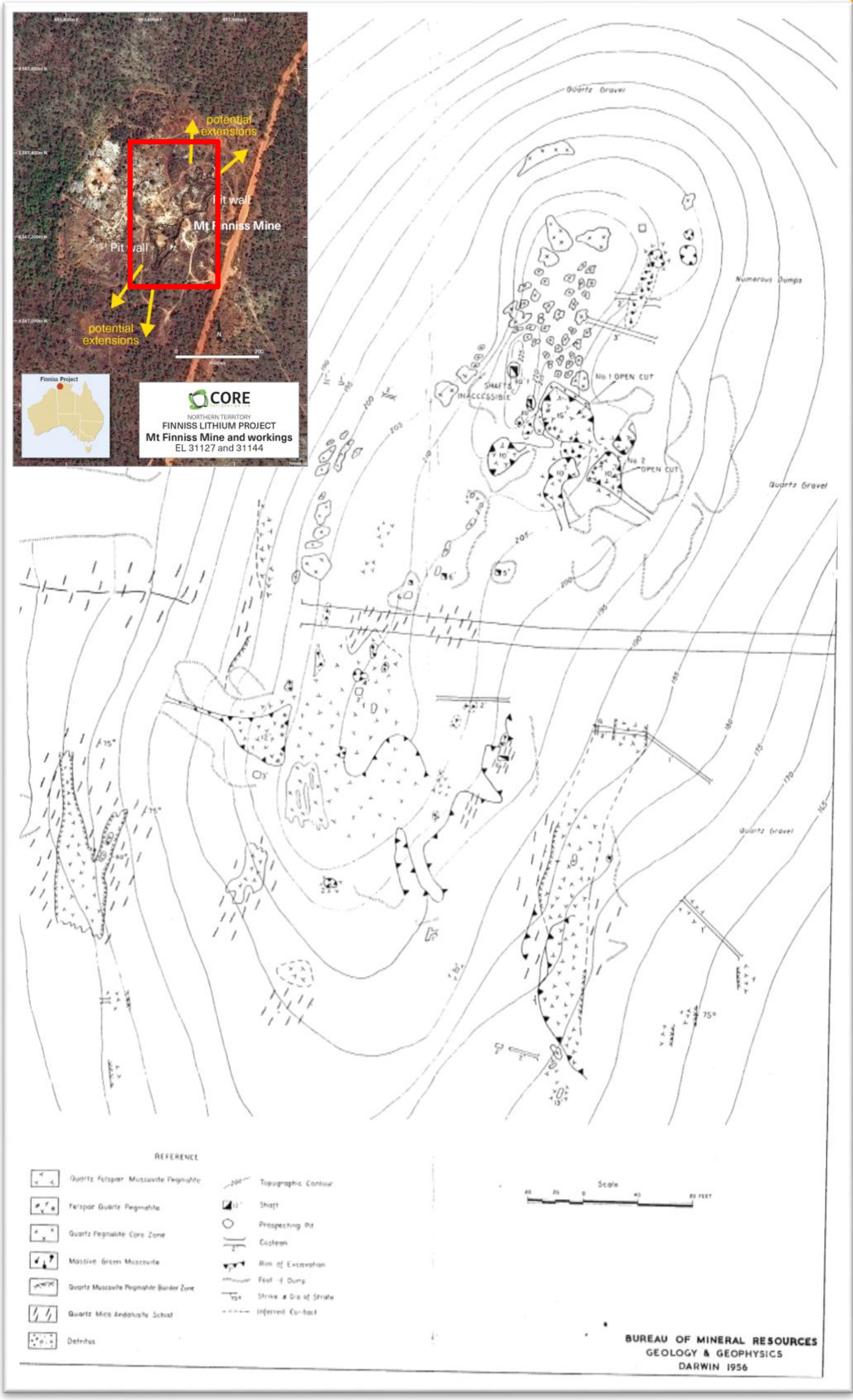

Figure 3. Mt Finniss Mine plan (circa 1957) and recent satellite image of Mt Finniss Mine.

Project Background

Core's Finniss Lithium Project covers over 200km^2 and 25 historic pegmatite mines the Bynoe pegmatite field, which includes the Mount Finniss Tin Tantalum Mine – the largest historically producing tin and tantalum pegmatite mine in NT (Figures 3 & 4).

As with Greenbushes in WA, one of the world's largest spodumene deposits, the Bynoe Pegmatite Field also has a 100 year history of tin and tantalum production before the potential for economic lithium was recognised.

Core holds close to 3,000km^2 of tenure over lithium rich pegmatite provinces in the NT including the Bynoe, Anningie and Barrow Creek pegmatite fields. The scale of Core's holdings and the volume pegmatite swarms within them potentially positions Core as a significant player as lithium supply markets evolve and mature.

The Bynoe region has substantial infrastructure advantages being close to grid power, gas and rail infrastructure and within easy trucking distance by sealed road to Darwin Port - Australia's nearest port to Asia (Figure 4).

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The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

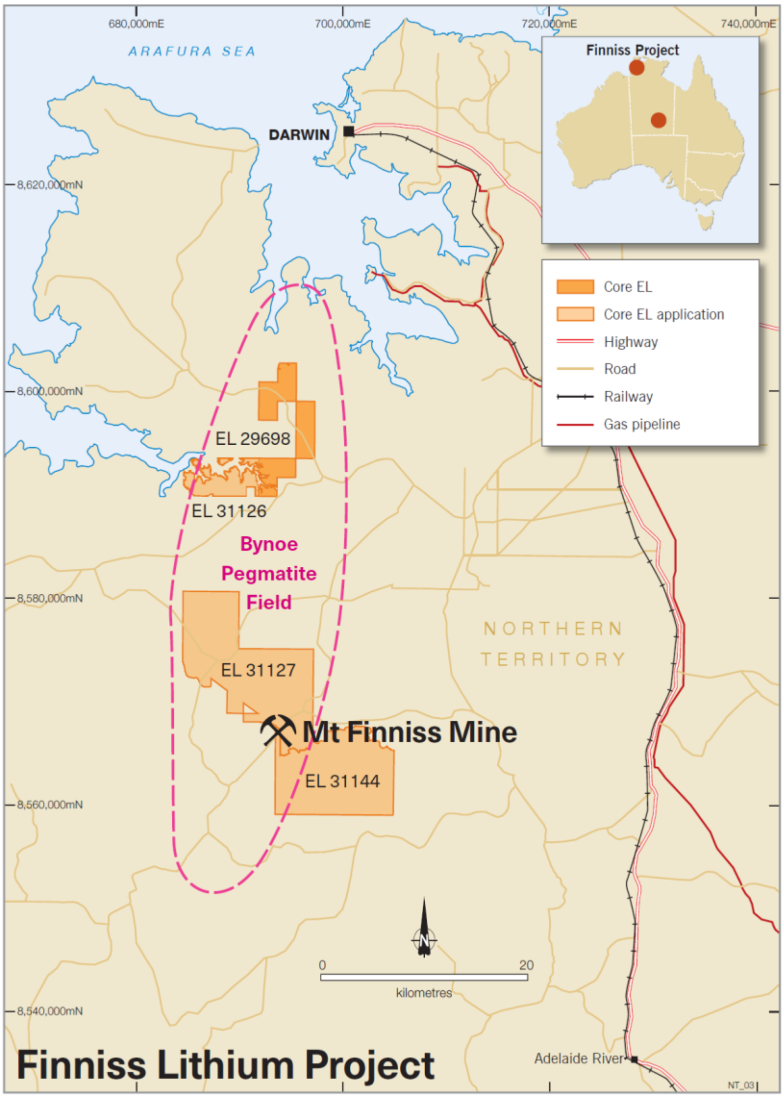

Figure 4. Core's Finniss Lithium Project tenements in the Bynoe pegmatite field, NT.

JORC Code, 2012 Edition – Table 1 report template

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.*	• Surface Rock Chip sampling was undertaken as part of reconnaissance mapping and prospecting of established pegmatite and historic workings/mines at Mt Finniss in CXO's tenure. Samples were taken from a range of pegmatite lithologies and host rocks including those interpreted to comprise spodumene/lepidolite/ amblygonite. Many were collected from waste dumps or loose materials emanating from historic workings and costeans. Some in situ material was also sampled. • Sample locations were determined with a hand held GPS, coordinates and geological descriptions were noted for each sample. • The sampling program was reconnaissance in nature, rockchips were taken at the discretion of a geologist according to visual inspection of suitably mineralised and / or unmineralised rock units.
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).*	• No drilling undertaken
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.*	• No drilling undertaken

Criteria	JORC Code explanation	Commentary
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	
Logging	• *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.*	• No drilling undertaken
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.*	• Samples were sent to Intertek in Adelaide where the entire sample was dried, crushed, then pulverised to 85% passing 75 microns or better. • Samples are greater than 1 kg in most cases, which is sufficient for the grain size of the material being analysed. No selective hand picking took place. • In some cases where rock had weathered to gravelly material, multiple pieces of representative rock were required to create a composite sample. • Duplicates were collected at site to monitor sampling variability. No discernable variations have been noted in the data. • No other quality control procedures were considered necessary for this reconnaissance style sampling program.
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 (eg standards, blanks,*	• After sample preparation (see above), sample pulps were then analysed by Intertek via 4A/MS 4 Acid Digest Mass Spectrometry: and 4A/OE 4 Acid Digest Inductively Coupled Plasma Optical Emission Spectrometry for a broad element suite including Li. • The upper detection range for Li by this method is 5000 ppm. • A trigger was set at 2000 ppm Li, at which point sample pulps underwent are undergoing a separate sodium-peroxide fusion in a zirconium crucible for Li, Cs, Nb, Rb, Sn, Ta, Y via Mass

Criteria	JORC Code explanation	Commentary
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Spectrometry. The purpose of this is to determine the presence of any refractory lithium minerals, in which case the fusion-determined Li will be greater than the 4 acid-determined Li. Results obtained thus far suggest Li is not refractory and Li determination by these two methods is equivalent. • Intertek utilised standard internal quality control measures including the use of standards and duplicates. • No CXO-implemented quality control procedures were considered necessary for this reconnaissance style sampling program.
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.*	• Sample ID, location (east/north), nature of sampled dump/float/pit, and description were entered into a spreadsheet. • Metallic Lithium percent was multiplied by a conversion factor of 2.15283 to report 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 coordinate information was collected using hand held GPS utilizing GDA 94, Zone 52. • Sample location also marked on the ground with a semi-permanent sample tag.
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.*	• Samples collected at random positions at the discretion of the geologist.
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*	• No drilling undertaken

Criteria	JORC Code explanation	Commentary
	sampling bias, this should be assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• No drilling undertaken
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No drilling undertaken

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.*	• Samples were collected from ELA31127(including Mt Finniss Mine) held by Core Exploration via it's 100% owned subsidiary Double Blues Pty Ltd. This tenement comprises Vacant Crown land, NT Government owned land and private freehold. The Mount Finniss Mine as sampled and reported herein is within the Crown land portion. • There are no registered heritage sites covering the areas sampled. • Tenement application is in good standing with the NT DME Titles Division.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The history of mining in the Bynoe Harbour – Middle Arm area dates back to 1886 when tin was discovered by Mr C Clark. • The records of production for many mines are not complete, and in numerous cases changes have been made to the names of the mines and prospects which tend to confuse the records still further. In many cases the published names of mines cannot be linked to field occurrences. • In the early 1980s the Bynoe Pegmatite field was reactivated during a period of high tantalum prices by Greenbushes Tin which owned and operated the Greenbushes Tin and Tantalite (and later spodumene)

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		Mine in WA. Greenbushes Tin Ltd entered into a JV named the Bynoe Joint Venture with Barbara Mining Corporation, a subsidiary of Bayer AG of Germany. • Greenex (the exploration arm of Greenbushes Tin Ltd) explored the Bynoe pegmatite field between 1980 and 1990 and produced tin and tantalite from its Observation Hill Treatment Plant between 1986 and 1988. • They then tributed the project out to a company named Fieldcorp Pty Ltd who operated it between 1991 and 1995. • In 1996, Julia Corp drilled RC holes into representative pegmatites in the field, but like all of their predecessors, did not assay for Li. • Since 1996 the field has been defunct until recently when exploration has begun on ascertaining the lithium prospectivity of the Bynoe pegmatites. • The NT geological Survey undertook a regional appraisal of the field, which was published in 2004 (NTGS Report 16, Frater 2004).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The tenements sampled cover the northern and southern portions of a swarm of complex zoned rare element pegmatite field, which comprises the 55km long by 10km wide West Arm – Mt Finniss pegmatite belt (Bynoe Pegmatite Field; NTGS Report 16). The main pegmatites in this belt are: Mt Finniss, Grants, BP33, Bilato's (Picketts) and Hang Gong. • The Finniss pegmatites have intruded early Proterozoic shales, siltstones and schists of the Burrell Creek Formation which lies on the northwest margin of the Pine Creek Geosyncline. To the south and west are the granitoid plutons and pegmatitic granite stocks of the Litchfield Complex. The source of the fluids that have formed the intruding pegmatites is generally accepted as being the Two Sisters Granite to the west of the belt, and which probably underlies the entire area at depths of 5-10 km. • Lithium mineralisation has been identified as occurring at Bilato's (Picketts), Saffums 1 (amblygonite) and more recently at Hang Gong

Criteria	JORC Code explanation	Commentary
		(spodumene). • The Burrell Creek Formation increases in metamorphic grade westward from siltstone, phyllite and siltstone, to upper greenschist facies gneiss and schist. Sedimentary features and lithologies, typical of the lower grade units of the Burrell Creek Formation, can be recognised until the sillimanite isograd is approached, whereafter whereafter these features are obliterated by recrystallisation.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• No drilling undertaken
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.*	• The simple arithmetic average of the 46 samples was 1,198 ppm Li_2O
Relationship between	• *These relationships are particularly important in the reporting of Exploration Results.*	• As the geochemical results thus far collected by Core Exploration are from surface, any potential depths of mineralisation or orientations

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mineralisation widths and intercept lengths	• *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').*	can only be inferred from geological observations on the surface and hence are speculative in nature.
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.*	• See figures in release
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.*	• 46 rock chip samples were collected from Mt Finniss Mine pits and waste dumps. The highest sample assay is 7,859 ppm and the lowest 64ppm Li_2O.The simple arithmetic average of the 46 assays was 1,198 ppm Li_2O. • Samples locations have not been included as the samples were collected from various waste dumps and material in and around mine pits, so the location of collection is misrepresentative of the insitu location of the sample (which is unknown). Location of the Mt Finniss Mine is shown on Figures 3 & 4. •
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.*	• See release details
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.*	• Core plans to undertake a reconnaissance first pass reverse circulation drill program on EL29698 to test the collected surface geochemical results in the beginning of the 3rd Quarter of 2016, approvals pending.