



ASX ANNOUNCEMENT

ASX: CXO

15th March 2016

Core Expands Dominant Position in NT Lithium Rich Pegmatite Fields

HIGHLIGHTS

- Core has further expanded its dominant position in the NT tin tantalum pegmatite fields through applications for 2,500 sq km of additional lithium prospective tenements in the lithium-rich Anningie and Barrow Creek pegmatite fields near Mt Peake
- Spodumene and other lithium minerals have historically been identified in the Anningie Pegmatite Field
- Core's dominant tenure position now covers a large proportion of the total historic tin tantalum pegmatite production in the NT
- Core's NT Lithium Projects also include the Mount Finniss Tin Tantalum Mine – the largest historically producing tin and tantalum pegmatite mine in the NT, and a further 25 historic tin tantalum pegmatite mines in the lithium rich Bynoe pegmatite field
- Preparations are underway to commence evaluation and testing the lithium potential of numerous historic pegmatite mine workings to commence in the coming weeks

Core Exploration Ltd (ASX: CXO) ("Core" or the "Company") is pleased to report that it has further enhanced its dominant position in the NT tin tantalum pegmatite fields through the submission of four new Exploration Licence applications covering approximately 2,500 square kilometres (Figures 1 & 2) in and around the Anningie and Barrow Creek Tin Tantalum Pegmatite fields in the north Arunta Region of the Northern Territory, which are considered highly prospective for lithium.

The applications significantly increase Core's dominant position in the lithium rich pegmatite provinces of the Northern Territory, which includes the Mount Finnis Tin Tantalum Mines – the largest historically producing tin and tantalum pegmatite mine in the NT.

The Company expects the Exploration Licences to be granted in Q3 2016.

The lithium minerals spodumene, elbaite and lepidodite have been recorded in pegmatites from the Anningie Field.

Geoscientific research by the Northern Territory Geological Survey ("NTGS") and others also highlight that the lithium contents of the Barrow Creek source granites and pegmatites are considerably higher than most other granites in the NT, and comparable to source granites in the highly prospective Pine Creek Pegmatite Province (Figure 1). However, no modern exploration has been conducted for lithium in these areas of tin and tantalum production from these pegmatites.

Next Steps

The Company's cash position of ~\$1 million after the recently completed capital raising places the Company in a strong position to undertake exploration and evaluation work across its portfolio of lithium projects in the Northern Territory.

Core is planning to commence evaluation and field testing of the lithium potential of the historic mine workings, tailings and dumps within the Finnis Lithium Project in the coming weeks.

NORTHERN ARUNTA PEGMATITE PROVINCE

The major tin-tantalum pegmatite fields of the Northern Territory occur on the margin of the Pine Creek Orogen (e.g. Bynoe Field near Darwin) and the northern margin of the Arunta Region (Figure 1).

The Northern Arunta pegmatite province occurs in well-defined clusters in the Barrow Creek and Anningie pegmatite fields (Figure 2). The mineralised pegmatites typically occur in linear swarms and range in size from a few metres long and less than a metre wide up to hundreds of metres long and tens of metres wide.

The first reported occurrence of alluvial tin mining from tin-bearing pegmatites in the Arunta Region was not until 1935, when shallow alluvial deposits were worked on leases southwest of Barrow Creek township at what was to become the Anningie Tin Field.

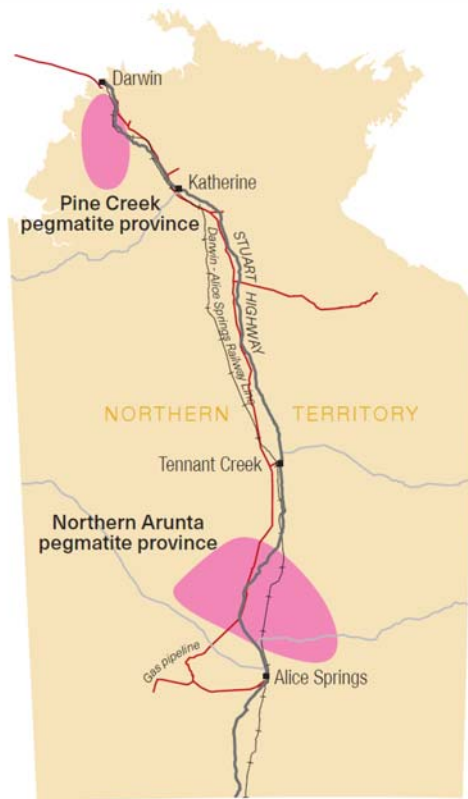


Figure 1. Tin-tantalum pegmatite provinces of the Northern Territory (from NTGS Report 16 – 2004)

As with Greenbushes in WA, before economic lithium was recognised, the northern Arunta also has a long history of tin and tantalum mining. It is also evident that the pegmatites in the Anningie and Barrow Creek fields are enriched with lithium as evidenced by economic lithium minerals spodumene as well as highly elevated lithium in geoscientific sampling of source granites and pegmatites.

To date lithium has not been explored for in the north Arunta and the potential of the area is yet to be properly assessed given all of the historical work only focused on tin-tantalum. The pegmatites that have been recognised and exploited to date are only the near surface expression and there is high potential for larger mineralised bodies at depth.

Anningie Pegmatite Field

The Anningie Tin Field is located southwest of TNG Ltd’s (ASX:TNG) Mt Peake Vanadium Project approximately 80km west of Barrow Creek in NT (Figure 2).

Alluvial tin was discovered at the site of what was to become the Reward Lease in 1935.

The lithium minerals spodumene, elbaite and lepidolite are reported to occur in pegmatite a few kilometres east of the Anningie Tin Field.

Located toward the centre of the field, the Reward mine (within excised area – Figure 2) is reported to contain the largest of the tin-tantalum bearing pegmatites (~200 m long and ~10-20 m wide). The main workings occurred in alluvium and that mineralisation was the result of the shedding of tin-tantalum from outcropping pegmatite dykes.

The Reward pegmatite was sampled by the NTGS (~circa 2004) and analysed for major- and trace-element chemistry. NTGS report states that Reward pegmatite clearly has the most favourable chemistry of all the North Arunta pegmatites. Lithophile trace elements Rb, Cs and Li, are consistently high and also more elevated in Ta, Nb, Sn and Li, than the other pegmatites sampled in the suite.

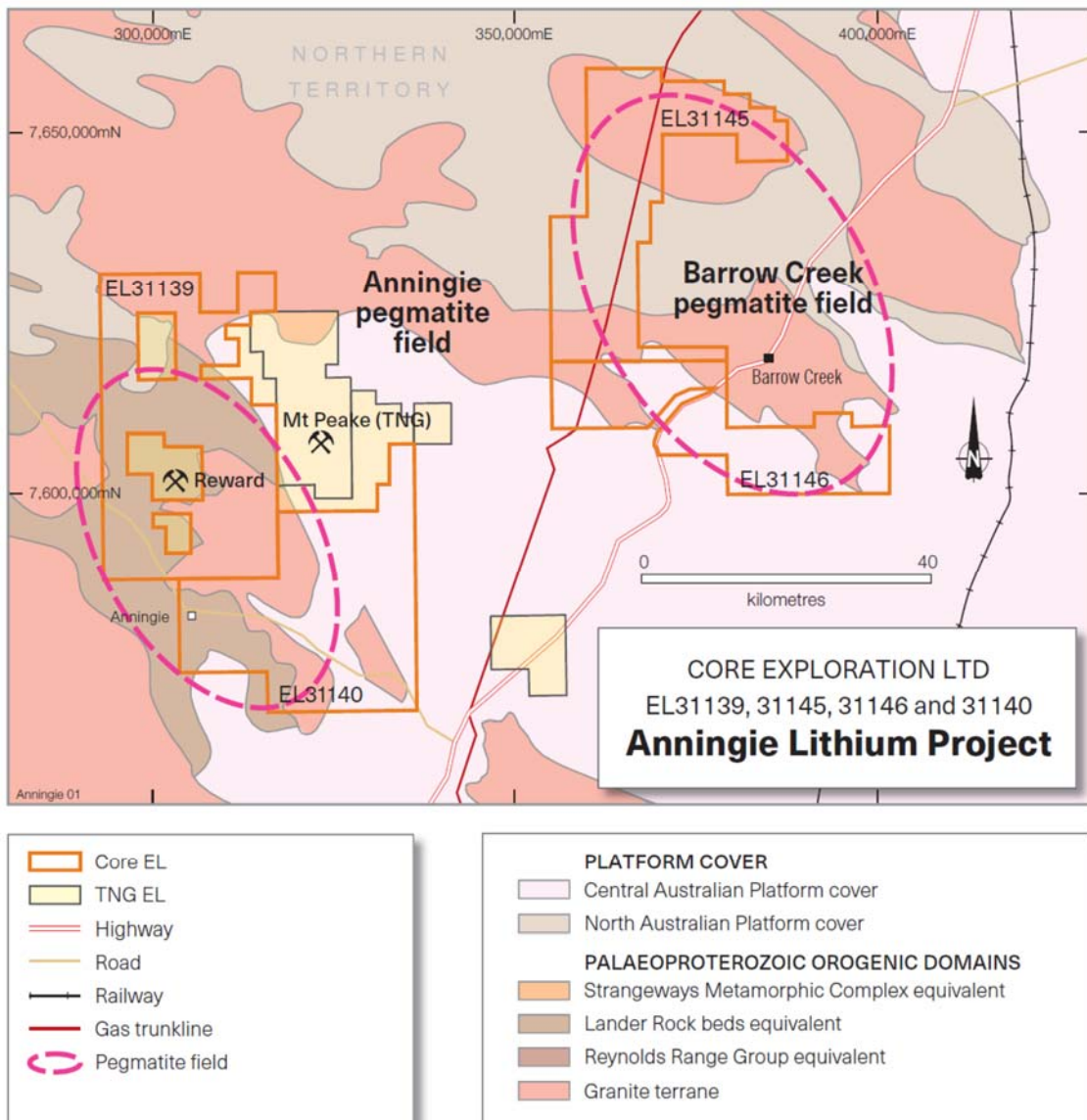


Figure 2 Core's tenements within the Anningie and Barrow Creek Pegmatite Fields, NT



Barrow Creek Pegmatite Field

A number of tin-tantalum-bearing pegmatites intrude the Palaeoproterozoic Bullion Schist within 30 km of Barrow Creek.

Tin tantalum concentrate production commenced in the 1940's from the Barrow Creek pegmatite field from weathered pegmatite and elluvium.

The source granite for the pegmatites is considered to be the 1713 Ma, fractionated S-type Barrow Creek Suite, which occurs as apophyses throughout the Barrow Creek area (Figure 2).

NTGS and other geoscientific research highlights that the Barrow Creek Suite source granites have enriched lithium contents comparable with the highest lithium granites in the NT.

For further information please contact:

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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.



North Arunta Lithium Project – March 2016– JORC 2012

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>In cases where ‘industry standard’ work has been done this would be relatively simple (egg ‘RC 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.</i> 	<ul style="list-style-type: none"> • No sampling conducted by Core Exploration to date
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (egg core, RC, 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).</i> 	<ul style="list-style-type: none"> • No drilling undertaken
Drill sample	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries</i> 	<ul style="list-style-type: none"> • No drilling undertaken



Criteria	JORC Code explanation	Commentary
recovery	<p><i>and results assessed.</i></p> <ul style="list-style-type: none"> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	
Logging	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • No drilling undertaken
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <ul style="list-style-type: none"> • <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</i> 	<ul style="list-style-type: none"> • No sampling undertaken.



Criteria	JORC Code explanation	Commentary
	<p><i>duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> No sampling undertaken
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <p><i>the use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <ul style="list-style-type: none"> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> No sampling undertaken
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations</i> 	<ul style="list-style-type: none"> No drilling or sampling undertaken



Criteria	JORC Code explanation	Commentary
	<p><i>used in Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • No drilling or sampling undertaken
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • No drilling or sampling undertaken.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • No sampling undertaken
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or reviews have been undertaken

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral	<ul style="list-style-type: none"> • <i>Type, reference name/number, location and ownership including</i> 	<ul style="list-style-type: none"> • DBL Blues Pty Ltd a wholly owned subsidiary of Core Exploration Ltd



Criteria	JORC Code explanation	Commentary
tenement and land tenure status	<p><i>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.</i></p> <ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> CXO has applied for four exploration tenements ELs 31139 and 31140 in the Anningie and ELs 31145 and EL 31146 in the Barrow Creek Pegmatite Fields CXO manages the tenure. All tenure applications are outside of registered Heritage, Conservation or National Parks. CXO may face a range of land owner access issues typical to the exploration industry in the NT
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> There has been multiple, sporadic but intensive periods of prospecting, exploration and small scale mining within the Bynoe Project area since the 1940s. All known previous work has focussed on tin and tantalum with no systematic assaying for lithium. All previous work has focussed on either alluvial/eluvial material or the upper, weathered portion of the bedrock which would be suitable for free digging. Depth of weathering is approximately 20m depth and any spodumene would be totally altered to kaolinite with the lithium completely depleted. Historic exploration reports is currently been reviewed and results summarised; however, CXO has not yet completed digital capture and compilation of data collected by previous explorers and miners.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Project is located in the western part of the Proterozoic north Arunta where it comprises a sequence of metamorphosed greenstones and sediments. Multiple tin and tantalum-bearing pegmatites have been emplaced into the sediments within the contact aureole of the Barrow Creek Suite Granite a Paleoproterozoic intrusion which is interpreted to be the source of the rare metals. Dimensions of the pegmatites vary in scale from narrow fracture fillings to massive bodies up to 30m wide and >200m long.
Drill hole Information	<ul style="list-style-type: none"> <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information</i> 	<ul style="list-style-type: none"> No drilling undertaken



Criteria	JORC Code explanation	Commentary
	<p>for all Material drill holes:</p> <ul style="list-style-type: none"> ○ 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. <ul style="list-style-type: none"> ● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● Not applicable
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ● 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’). 	<ul style="list-style-type: none"> ● Not applicable
Diagrams	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● See attached plans in body of report.



Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Not applicable
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All meaningful and material data reported
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Capture and compilation of historic data into a digital database; Ranking of pegmatites according to size potential; Geological mapping and prospect assessment; Trenching (if feasible); and RC drilling to test fresh bedrock for spodumene mineralisation